


MEMPHIS STATE  
UNIVERSITY  
GRADUATE SCHOOL  
BULLETIN

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**BULLETIN**  
*of*  
**Memphis State University**

Vol. XII September, 1961 No. 1

**THE**  
**GRADUATE SCHOOL**



*Announcements for 1961-62*

# THE GRADUATE SCHOOL

CALENDAR, 1961-62

1961													
SEPTEMBER							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2				1	2	3	4
3	4	5	6	7	8	9	5	6	7	8	9	10	11
10	11	12	13	14	15	16	12	13	14	15	16	17	18
17	18	19	20	21	22	23	19	20	21	22	23	24	25
24	25	26	27	28	29	30	26	27	28	29	30		
OCTOBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7						1	2
8	9	10	11	12	13	14	3	4	5	6	7	8	9
15	16	17	18	19	20	21	10	11	12	13	14	15	16
22	23	24	25	26	27	28	17	18	19	20	21	22	23
29	30	31					24	25	26	27	28	29	30
							31						
1962													
JANUARY							MAY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6			1	2	3	4	5
7	8	9	10	11	12	13	6	7	8	9	10	11	12
14	15	16	17	18	19	20	13	14	15	16	17	18	19
21	22	23	24	25	26	27	20	21	22	23	24	25	26
28	29	30	31				27	28	29	30	31		
FEBRUARY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3						1	2
4	5	6	7	8	9	10	3	4	5	6	7	8	9
11	12	13	14	15	16	17	10	11	12	13	14	15	16
18	19	20	21	22	23	24	17	18	19	20	21	22	23
25	26	27	28				24	25	26	27	28	29	30
MARCH							JULY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28
25	26	27	28	29	30	31	29	30	31				
APRIL							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25
29	30						26	27	28	29	30	31	

# GRADUATE SCHOOL MEMPHIS STATE UNIVERSITY

## Calendar 1961 - 62

### Fall Semester 1961-62

Saturday, September 16.....	Registration of Graduate Students, 8:00 a.m.—12:00 noon
Monday, September 18.....	Classes Meet as Scheduled
Friday, September 28.....	Last Day for Adding Courses
Friday, October 13.....	West Tennessee Education Association (holiday)
Friday, October 20.....	Last Day for Dropping Courses
Friday, November 10.....	Veterans' Day (holiday)
Thursday, November 23-26.....	Thanksgiving Holidays (inclusive)
Sunday, December 17-January 1.....	Christmas Holidays (inclusive)
Monday, January 22-25.....	Final Examinations, First Semester Ends
Saturday, January 27.....	Convocation, 10:00 a.m.—Auditorium

### Spring Semester 1962

Saturday, February 3.....	Registration of Graduate Students, 8:00 a.m.—12:00 noon
Wednesday, February 7.....	Classes Meet as Scheduled
Tuesday, February 13.....	Last Day for Adding Courses
Tuesday, March 13.....	Last Day for Dropping Courses
Thursday, April 19-22.....	Easter Holidays (inclusive)
Monday, May 21-24.....	Final Examinations, Second Semester Ends
Saturday, May 26.....	Convocation, 10:00 a.m., Field House

### Summer Session 1962

#### First Term

Thursday, June 7.....	Registration of Graduate Students, 1:00 p.m.-4:00 p.m.
Friday, June 8.....	Classes Meet as Scheduled
Tuesday, June 12.....	Last Day for Adding First Term Courses
Tuesday, June 19.....	Last Day for Dropping First Term Courses
Wednesday, July 4.....	Independence Day (holiday)
Friday, July 13.....	Final Examinations, First Term Ends

#### Second Term

Monday, July 16.....	Registration of Graduate Students, 1:00 p.m.-4:00 p.m.
Tuesday, July 17.....	Classes Meet as Scheduled
Thursday, July 19.....	Last Day for Adding Second Term Courses
Thursday, July 26.....	Last Day for Dropping Second Term Courses
Friday, August 17.....	Final Examinations, Second Term Ends
Saturday, August 18.....	Convocation, 10:00 a.m.—Auditorium

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## GRADUATE SCHOOL ADMINISTRATION

### Administrative Officers

CECIL C. HUMPHREYS, PH.D., *President*

JOHN W. RICHARDSON, JR., ED.D., *Director, Graduate School*

LAMAR NEWPORT, M.A., *Bursar*

R. P. CLARK, M.A., *Registrar*

MRS. VELDA HART, B.B.A., *Secretary, Graduate School*

### State Board of Education

Governor Buford Ellington.....	Nashville
Commissioner Joe Morgan, Chairman.....	Nashville
Hon. Ernest C. Ball.....	Memphis
Hon. Thomas M. Devine.....	Kingsport
Hon. Edward L. Jennings.....	Liberty
Hon. Clarence Kolwyck.....	Chattanooga
Hon. W. R. Landrum.....	Trenton
Mrs. Bernard A. McDermott.....	Nashville
Hon. J. Howard Warf.....	Hohenwald
Hon. James Williams.....	Henderson
Mrs. Sam Wilson.....	Loudon

## Graduate School Faculty

- Holger W. Andersen.....*Associate Professor, Psychology*  
Ph.D. (1937), George Peabody College for Teachers
- Robert L. Arends.....*Assistant Professor, English*  
Ph.D. (1948), Yale University
- Peter Bannon.....*Professor, English*  
Ph.D. (1943), State University of Iowa
- William B. Barton, Jr.....*Professor, Philosophy*  
Ph.D. (1955), Harvard University
- Eugene Bence.....*Associate Professor, Speech and Drama*  
M.A. (1949), Northwestern University
- Aaron M. Boom.....*Professor, History*  
Ph.D. (1948), University of Chicago
- Nelms B. Boone.....*Special Instructor, Psychology*  
Ph.D. (1954), George Peabody College for Teachers
- Carl D. Brown.....*Professor, Biology*  
Ph.D. (1951), Iowa State College
- Leon W. Brownlee.....*Associate Professor, Education*  
Ph.D. (1952), University of Texas
- James Gordon Burrow.....*Assistant Professor, History*  
Ph.D. (1956), University of Illinois
- W. Pierce Carson.....*Professor, English*  
Ph.D. (1925), Columbia University
- Don P. Claypool.....*Associate Professor, Chemistry*  
Ph.D. (1952), University of Kentucky
- R. J. Coltharp.....*Professor, Industrial Arts*  
M.S. (1938), Kansas State College
- E. Earl Crader.....*Professor, Education*  
Ph.D. (1952), George Peabody College for Teachers
- Edward Irwin Crawford.....*Professor, Accountancy*  
Ed.D. (1946), New York University
- Lawrence W. Curbo.....*Assistant Professor, Accounting*  
M.B.A. (1950), University of Mississippi; C.P.A. (1950), Mississippi
- Lurad R. England.....*Associate Professor, Education*  
Ph.D. (1952), George Peabody College for Teachers



- Henry B. Evans.....*Professor, English*  
Ph.D. (1938), George Peabody College for Teachers
- John Farrow.....*Associate Professor, English*  
Ph.D. (1954), University of North Carolina
- Jesse W. Fox.....*Professor, Chemistry*  
M.A. (1937), George Peabody College for Teachers
- John R. Gordon.....*Professor, Sociology*  
Ph.D. (1951), The University of Texas
- Joe W. Hart.....*Assistant Professor, Sociology*  
Ed.D. (1960), North Texas State College
- Ralph Hatley.....*Professor, Health and Physical Ed.*  
M. A. (1950), University of Tennessee
- Ford Haynes, Jr.....*Associate Professor, Education*  
Ed.D. (1958) University of Tennessee
- Elmore Holmes.....*Professor, Chemistry*  
Ph.D. (1947), University of Tennessee
- Elmo H. Howell.....*Assistant Professor, English*  
Ph.D. (1955), University of Florida
- Charles Carrol Ijams.....*Professor, Physics*  
Ph.D. (1941), Vanderbilt University
- R. W. Jennings.....*Professor, Business Education*  
Ph.D. (1949), University of Kentucky
- Rayburn W. Johnson.....*Professor, Geography*  
Ph.D. (1936), University of Chicago
- H. S. Kaltenborn.....*Professor, Mathematics*  
Ph.D. (1934), University of Michigan
- Irl B. Krause Jr.....*Associate Professor, Education*  
Ed.D. (1956), University of Mississippi
- Eugene W. Lambert.....*Professor, Health and Physical Education*  
Ed.D. (1942), Columbia University
- Perry E. LeRoy.....*Assistant Professor, History*  
Ph.D. (1960), Ohio State University
- Rosella Linskie.....*Professor, Education*  
Ph.D. (1956), University of Texas
- James R. McCann.....*Professor, Psychology*  
Ph.D. (1955), Vanderbilt University

- Genora McFaddin.....*Associate Professor, Education*  
Ph.D. (1948), George Peabody College for Teachers
- Herbert J. Markle.....*Professor, Management and Finance*  
Ph.D. (1951), State University of Iowa
- Robert H. Marshall.....*Associate Professor, Chemistry*  
Ph.D. (1954), University of Illinois
- James S. Matthews.....*Associate Professor, Geography*  
Ph.D. (1949), University of Chicago
- W. Theodore May.....*Special Instructor, Psychology*  
Ph.D. (1954), University of Tennessee
- Enoch L. Mitchell.....*Professor, History*  
M.A. (1938), George Peabody College for Teachers
- Roland T. Mullins.....*Professor, Management and Finance*  
Ph.D. (1961), University of Arkansas
- Elbert F. Nothern.....*Associate Professor, Education*  
Ed. D. (1953), University of Arkansas
- Marcus W. Orr.....*Assistant Professor, History*  
Ph.D. (1958), University of Illinois
- Vonne F. Porter.....*Associate Professor, Psychology*  
Ph.D. (1953), Vanderbilt University
- Richard Raridon.....*Associate Professor, Physics*  
Ph.D. (1958), Vanderbilt University
- John W. Richardson, Jr.....*Professor, Education*  
Ed.D. (1957), New York University
- A. S. Rudolph.....*Professor, Biology*  
Ph.D. (1938), Iowa State College
- Heber Eliot Rumble.....*Professor, Education*  
Ph.D. (1943), University of Illinois
- Frank B. Schirmer, Jr.....*Associate Professor, Chemistry*  
Ph.D. (1939), Cornell University

- E. B. Scott, Jr.-----*Assistant Professor, Health and Physical Education*  
P.E.D. (1954), Indiana University
- Dorothy Seay-----*Associate Professor, English*  
Ph.D. (1941), University of Chicago
- Paul H. Sisco-----*Associate Professor, Geography*  
Ph.D. (1954), University of Chicago
- Alfred Winn Smith-----*Assistant Professor, English*  
Ph.D. (1954), George Peabody College for Teachers
- Walter R. Smith-----*Professor, English*  
Ph.D. (1951), University of California
- Will D. Smith-----*Associate Professor, Education*  
Ph.D. (1952), George Peabody College for Teachers
- John A. Sobol-----*Assistant Professor, Geography*  
Ph.D. (1961), University of Michigan
- Jesse W. Spiceland-----*Professor, Accountancy*  
M.S.B.A. (1948), Washington University; CPA (1951), Tennessee
- Charles R. Spindler-----*Professor, Marketing*  
M.A. (1942), State University of Iowa
- James T. Thompson-----*Associate Professor, Accounting*  
M.A.C. (1949), Indiana University; CPA (1960), Tenn.
- Wayland A. Tonning-----*Associate Professor, Marketing*  
Ph.D. (1959), University of Illinois
- Clarence L. Underwood-----*Associate Professor, Education*  
Ph.D. (1935), University of Pittsburg
- David T. Walker-----*Assistant Professor, Mathematics*  
Ph.D. (1955), University of Georgia
- William E. Walker-----*Assistant Professor, English*  
Ph.D. (1957), Vanderbilt University
- Bradford White-----*Professor, Speech and Drama*  
M.F.A. (1939), Yale University
- Herbert Lee Williams-----*Professor, Journalism*  
Ph.D. (1955), University of Missouri
- James D. Woolf-----*Assistant Professor, English*  
Ph.D. (1953) Vanderbilt University
- Milton Wray-----*Assistant Professor, Accountancy*  
M.B.A. (1954), University of Pennsylvania; CPA (1956), Tenn.
- Lawrence Wynn-----*Associate Professor, English*  
Ph.D. (1951), Princeton University

## General Information

The Graduate School of Memphis State University is the center of advanced study within the University, the purpose of which is to train scholars and to carry on research in the fields of learning represented by its faculties.

The Graduate School aims first of all to meet the needs of students who wish to continue, on a more advanced level, some field of study begun in undergraduate courses, and who desire preparation for scholarly careers. The Graduate School is also concerned with preparing those who plan to teach or assume leadership responsibility in the public school system or in colleges. A general mastery of the field of interest is considered essential to all graduate programs.

The University operates on the semester system. The official calendar on page 3 shows dates for registration and the beginning of course work.

Three schedules, each carrying proportionate residence credit, are operated in the Fall and Spring semesters: one for full-time students, one for students who can attend classes only in the evening, and one for students who can attend classes only on Saturday.

## Organization of the Graduate School

The Graduate School is under the direction of the Graduate Council. This council is composed of the President of the University, the Director of the Graduate School, the Chairmen of each department in which the equivalent of a graduate major is offered, and in addition one faculty representative from each department in which the equivalent of a graduate minor is offered. Departments offering graduate courses, but not the equivalent of a major or minor, are collectively represented by one additional council member.

Students admitted to the Graduate School are responsible to the Graduate Council through the Director of the Graduate School. Any approved graduate faculty member may act as major or minor adviser to students in their respective departments.

## The University Plant

**Location.**—Memphis State University is located on a campus of eighty acres in the eastern part of the city of Memphis.

**Administration Building.**—The administration building is an imposing structure containing the offices of the president, dean, registrar, bursar, and the directors of the several schools. The dean of women's office and the alumni office are also located in this building. In addition to classrooms for the departments of Business, Education, English, History, Mathematics, Music, and Speech, the administration building contains individual office space for the instructors in these departments. The building was completely air conditioned in 1960.

**Manning Hall.**—The science building, erected in 1930, is named to perpetuate the memory of Priestly Hartwell Manning, the first teacher of science at Memphis State University and a member of its first faculty. Additional classrooms and laboratories were added in 1958-9 in order to take care of the growing demand for courses in science and to modernize the scientific equipment.

In Manning Hall are located the Department of Physical Sciences, including Chemistry and Physics, the Department of Biology, and the Department of Home Economics. The Department of Physical Sciences occupies the basement level, the first floor, and a part of the second floor; the Department of Biology occupies the larger portion of the second floor and a part of the third floor; the Department of Home Economics occupies a large part of the third floor and includes a demonstration apartment consisting of a living room, dining room, bedrooms, kitchen, closets, and storerooms. On the first floor is the science auditorium, which is equipped for visual aids and is available for scientific lectures and demonstrations.

**The Library Building**, erected in 1927, is named for former President John Willard Brister. It has recently been remodeled and expanded so that it will have a capacity of 150,000 volumes. The collection at present numbers 140,000 volumes including microfilm and microprint. Subscriptions and files are maintained for periodicals of a general and specialized nature to fill the needs of the curriculum.

The funds appropriated for the use of the library enable the university to maintain the standards set by accrediting agencies.

**Johnson Hall.**—Completed in 1958, is a two and one-half story ultra-modern, fireproof and air-conditioned building. It is named in honor of Dr. Rayburn W. Johnson, Chairman of the Department of Social Sciences, and his wife, the late Mrs. Ethel B. Johnson. Johnson Hall is the permanent home of Geography, Economics, Political Science, and Sociology. The first floor, with special features such as three laboratories, a Map Library, a Conference Room, and an Auditorium, is used by students and staff members in Geography. The unique auditorium is fully equipped to meet the demands of all the Social Sciences.

The second floor contains classrooms and staff offices which are used by the faculty and students in Economics, Political Science, Psychology, Philosophy, and Sociology.

The Ethel B. Johnson Reception Room is located on the ground floor directly under the auditorium. This beautiful room contains a large bronze plaque of Mrs. Johnson and is dedicated to the use of the MSU Dames. It will seat 100 people and is equipped with a modern kitchen. The ground floor also contains two classrooms and offices for three staff members.

**Jones Hall**—named in honor of Otis Henry Jones, Bursar of Memphis State University from 1925-1937, was completed in 1960. Modern in every respect, this building houses The Air Science Department in the basement and on the first floor, the Departments of Languages and Philosophy on the second floor, and the Department of Art on the third floor. In this building are also an extension of the Student Center, the offices of the Veterans Coordinator, and the University Postoffice.

**Training School.**—The Training School Building is designed to accommodate the elementary school and the junior high school. It has twenty-four classrooms, an auditorium, a library, and a cafeteria. The school has a normal enrollment of over 700, and furnishes facilities for training student teachers and opportunities for observing good teaching procedures.

**Gymnasiums.**—There are two buildings. One, erected in 1928, has been set aside for the use of the Training School. Another building with a seating capacity of 4000 for basketball games was completed in 1951. In 1958 an enlargement of this building was made possible through the generosity of the City of Memphis, which gave \$100,000.00 for this purpose. At present this building has two gymnasiums, shower and dressing facilities for both male and female physical education classes, shower and dressing facilities for varsity athletic teams, and in addition classrooms and offices for the Physical Education Department and coaching staff.

**Student Center.**—The University recognized the importance of providing a place where social life of students may be centered. The Student Center adjoins the cafeteria, and maintains a soda fountain, snack bar, and offers facilities for games, dancing, and group meetings. It is beautifully decorated and equipped in a modern manner.

**Cafeteria.**—The cafeteria, at the east end of the Student Center, is a newly decorated structure with a seating capacity of 500. The large and well-lighted kitchen is provided with all modern conveniences, including up-to-date ranges, ovens, and cold storage.

**The Power Plant.**—The power plant contains a battery of boilers for the heating of all the buildings on the campus.

**Industrial Arts Building.**—The industrial arts building was built in 1941 for the use of the N.Y.A. In 1946-47 it was remodeled and modernized. It is of concrete block construction, faced with brick veneer. It provides facilities for woodwork, drafting, metalwork, electricity, ceramics, photography, and general shop practices.

**University Auditorium.**—This auditorium is designed to seat approximately twelve hundred persons and is used for assemblies. The stage has been modernized to provide more adequately for the dramatic and musical productions that are sponsored by these departments.

**Health Center.**—Services of a physician and a registered nurse are provided for minor treatment and consultation in the University Health Service which is located on the first floor of the Administration Building. The student is responsible for arrangements for hospitalization or medical care beyond that offered by the Health Service. Parents of resident students will be notified by the Health Service if additional medical care is necessary.

**Bookstore.**—The University Bookstore is located on the first floor of the Administration Building. Here the students may purchase their textbooks and other supplies.

**Post Office.**—Each dormitory student is expected to rent a mail box to facilitate the handling of his mail, and should have his mail addressed: Memphis State University Station, Memphis 11, Tennessee.

## Living Accommodations

**Mynders Hall East** is a fireproof building offering modern, attractive quarters to 178 women. Dormitory facilities include attractive parlors, sound proof music rooms, a laundry equipped with automatic washers, dryers, and ironers for the use of the students, a kitchen for use in entertaining, and a sun deck. Rooms are arranged in suites of two bedrooms with connecting tile bath. Most suites accommodate three girls; a few accommodate four. Each room has a closet for each occupant, single beds with innerspring mattresses, chest, desk, desk chairs, and easy chairs. Floors are covered with asphalt tile.

**Mynders Hall West**, completed in the summer of 1956, is a modern, well equipped dormitory planned to accommodate 165 freshmen women. Its facilities include attractive lobbies, date rooms, a recreation room, a laundry room, and a small kitchenette. Rooms are planned to accommodate two girls, and each is equipped with venetian blinds, two closets, a wash basin, full length mirror, and for each resident a single bed with innerspring mattress, a chest-desk, and a chair.

**Scates Hall** is a three story structure with a capacity of 136 men students. This building has a three-room apartment for the manager and his family. The halls are well lighted, sound proof, and air conditioned. Each room is equipped with furniture for from one to three occupants. All floors are of concrete and are covered with asphalt tile. Each room also contains two closets and two double electric outlets for study lamps and radios.

**Hayden Hall** is a two story, modern fire proof building of brick and concrete construction. It is divided into three separate units and houses 102 athletes. Each unit has its own manager who lives with his family in an apartment in the unit. The dormitory features air cooling and an air conditioned cafeteria and TV lounge for the use of the residents.

**North Hall**, completed in February 1957, is a modern dormitory for men. Its 77 rooms, with entirely new furnishings, will accommodate 154 students. In addition, the building has two lobbies and a recreation room for students, and a two-bedroom apartment for the manager and his family.

**Veterans Houses.**—Nineteen buildings were erected on the northern portion of the campus in 1946-47. The buildings provide housing facilities for 75 families. The buildings were erected by the F.P.H.A. to relieve the housing shortage for married veterans.

## Tuition and Fees

All students registering for graduate work pay the below listed Maintenance Fee. Non-residents of Tennessee are charged the Maintenance Fee plus Non-Resident Tuition as indicated.

### A.—ON CAMPUS

Maintenance Fee—Full-time student.....	per semester	\$97.50
Non-Resident Tuition—Full-time student.....	per semester	82.50
Maintenance Fee—Part-time student.....	per semester hour	9.00
Non-Resident Tuition—Part-time student.....	per semester hour	9.00

### B.—OFF CAMPUS

Maintenance Fee—Part-time student.....	per semester hour	9.00
Non-Resident Tuition—Part-time student.....	per semester hour	9.00

### C.—Graduation Fee.....

15.00

### D.—SUMMER SCHOOL

Students may register for both terms of summer school at the first registration period (waiting until the second summer term to select the courses for that term) and pay a total registration fee of \$65.00 for state residents and an additional \$55.00 for out-of-state residents. This option may not be exercised after the initial summer registration period. No refunds will be made after the initial period for refunds.

Students who register for each term separately will pay the regular \$9.00 per semester hour for state residents and an additional 9.00 per semester hour for out-of-state residents.

## Extension Division

E. EARL CRADER, *Director*

Memphis State University has for a number of years conducted general education workshops. The increasing demand for these services has resulted in the organization of an Extension Division. The Extension Division was authorized by the State Board of Education in 1951 to afford an official avenue through which university services could be extended off-campus.

### EXTENSION CLASS INSTRUCTION

Graduate courses are offered through the Extension Division of Memphis State University at centers where suitable arrangements are made in advance. Regularly employed graduate faculty members listed in this Bulletin teach graduate extension courses. The subject matter taught in extension classes is the same as that offered on campus. Regulations regarding the approval of extension courses toward requirements for the Master of Arts degree are found on page 16 of this Bulletin.

### OTHER EXTENSION SERVICES

Where circumstances justify, the Extension Division attempts to provide various types of help to organized groups within the service area. This assistance may take the form of such activities as conferences, public addresses, consultative service, and other types of school and community aid. Regularly employed staff members of Memphis State University are available for this service.

To the end that an effective extension service may be carried on by Memphis State University, correspondence is invited with groups or individuals who are interested. Please address correspondence to:

EXTENSION DIVISION  
Administration Building, Room 264  
Memphis State University  
Memphis 11, Tennessee

## Admission To The Graduate School

The Graduate School is open to persons holding the Bachelor's degree from colleges and universities recognized by standard, general or regional accrediting agencies, whose undergraduate work has been of sufficient quality and scope to enable them to profitably pursue graduate study.\* All graduates of institutions other than Memphis State University are required to take an entrance examination.

\* Note Page 14

Admission to the Graduate School merely gives the privilege of taking course work. It does not in any way imply that the student is admitted to candidacy for an advanced degree.

Application blanks for admission to the Graduate School and dates of entrance examinations may be secured from the office of the Registrar, and all inquiries should be addressed to him.

Applicants for admission must submit an application and two official transcripts of their undergraduate credits before being considered for entrance into the Graduate School.

Applicants must present evidence of good health, moral character, and intellectual capacity necessary for pursuing graduate study.

## Registration and Attendance

After being admitted to Graduate School, the student must arrange a personal conference with the Director. During this conference the Director will assign tentative advisers and will advise as to programs available in Graduate School.

The student at this early interview will be expected to declare his major and minor areas of study. Students who have previously declared major and minor areas of study but desire to make a change should arrange a conference with the Director in order that the records may be revised.

Graduate students who notify the Registrar of their intentions to register will have their registration material ready for them when they arrive on the campus.

Graduate students who DO NOT notify the Registrar of their intentions to register will be delayed while the IBM office prepares their registration materials.

### PROCEDURE OF REGISTRATION

1.—Registration cards are issued in the Registrar's Office ONLY.

2.—After securing registration materials, confer with major adviser, complete materials, and secure signatures of both major and minor advisers.

NOTE: New graduate students will be assigned major and minor advisers in the conference with the Director of the Graduate School.

3.—Class cards will be secured from Departmental Chairmen.

4.—All materials must be presented to Director of Graduate School.

5.—After the registration is approved by the Director, materials must be taken to the Bursar's Office where all fees must be paid. Registration is not complete until all fees are paid.

### ADDING OR DROPPING COURSES OR CHANGING SECTIONS

After a graduate student has completed his registration, it cannot be changed without approval of the Director of the Graduate School. The adjustment will originate in the office of the Director, and the change-of-course must have the approval of the student's major adviser and the Director.

### WITHDRAWING FROM GRADUATE SCHOOL

Failure to give official notice of complete withdrawal from Graduate School in writing will result in a grade of "F" in each course for which the student was registered.

A withdrawal is not permitted within one week of the beginning of the final examination period of a semester or a summer term. Any student who withdraws after the drop period ends will have all courses not previously dropped recorded as: WP—Withdrew Passing or WF—Withdrew Failing. The parent or guardian of minor students will be advised of withdrawals.

Address your notice of withdrawal to:

DIRECTOR, THE GRADUATE SCHOOL  
Memphis State University  
Memphis 11, Tennessee.

\*Note: Undergraduate students at Memphis State University who are enrolled for courses which complete their undergraduate degree may apply for admission to graduate studies and in special cases be allowed to register for graduate courses not to exceed a total of 15 semester hours of combined course work.



## Requirements for the Master of Arts Degree

Every graduate student and every prospective graduate student is expected to make himself thoroughly familiar with the regulations of the Graduate School and the requirements for degrees. Failure to follow the regulations and requirements almost inevitably results in complications for which the Graduate School cannot assume responsibility.

To facilitate communication, graduate students are expected to notify the Graduate Office of their changes of address. They should remember that all details connected with their work center in the Graduate Office.

### ADMISSION TO CANDIDACY FOR THE MASTER OF ARTS DEGREE

To become a candidate for a degree, the student must file an application on blanks available at the office of the Director. The application must contain plans for a complete program of graduate study and be approved by a faculty adviser in both the major and minor areas.

Before the "Application for Admission to Candidacy for the Master of Arts Degree" can be approved and the applicant can be officially admitted to candidacy for the Master of Arts degree, the student must have satisfied the following requirements:

1. He must have completed some graduate work in residence.
2. He must have completed prerequisite undergraduate requirements of not less than 18 semester hours in his graduate major area and not less than 6 semester hours in his graduate minor area, except in special cases approved by the Director of the Graduate School and the Chairman of the department concerned.
3. He must have at least a "B" average on all graduate work which has been completed during the six calendar years immediately preceding the date of the application for degree candidacy.
4. The general field of his thesis must have been approved, **IF HIS PROGRAM INCLUDES THE REQUIREMENT OF A THESIS;**
5. His graduate work up to this point must be acceptable in quality and quantity to his major and minor departments as attested by their approval of his program.
6. His entire program must conform to the general regulations of the Graduate School and the requirements for his particular major and minor.

Every student who files an "Application for Admission to Candidacy for the Master of Arts Degree" will receive from the Graduate office an approved copy of the application or a letter explaining why approval has been withheld.

### SEMESTER HOUR REQUIREMENTS

The Master of Arts degree program shall include 30-33 semester hours of course work as follows, 18-21 semester hours in a major area, 8-12 semester hours in a minor area, 4 semester hours or less in general electives.

If a thesis of 3-6 semester hours is submitted, the degree may be completed with 30 semester hours. The thesis shall be in the major area and the overall major requirements shall be 18 semester hours.

If no thesis is submitted, the overall degree requirements shall be 33 semester hours, with a minimum of 21 semester hours in the major area.

All requirements for the degree must be completed within six years from date of the candidate's original registration for graduate courses.

At least 18 semester hours of the courses in a student's program must be of the type designated as primarily for graduate students (500 level courses). At least 12 semester hours of this must be done in the major. The department in which the minor is taken will determine whether or not any 500 level courses are required in the minor area.

Work done by graduate students registered for G-400 courses must be of a higher quality than that required of undergraduates. Also, the graduate student is required to do additional work. This may consist of research or of such other work as the instructor may demand.

#### **AMOUNT OF WORK PERMITTED**

Sixteen semester hours shall be the maximum load for students devoting full time to graduate study. Only full time students may register for more than twelve semester hours of course work in any one semester, including courses on campus, extension courses, and courses to be transferred from other institutions.

Graduate students who are employed on a full time basis may not register for more than two graduate courses.

A student may register for 18 semester hours during his final academic semester for the purpose of graduating, if he has had a 3.5 average on previous graduate studies completed.

Certain residence courses, designated as "problems courses," are described in this bulletin. Seven semester hours of credit through problems courses may be applied to degree requirements; however, not more than four semester hours may be applied toward the major or more than four semester hours toward the minor. A file of the work submitted by graduate students for credit in problems courses will be maintained in the Graduate Office, and graduate students will not be allowed to register for more than one (1) problems course in any one (1) semester or full summer session.

#### **MINIMUM RESIDENCE REQUIREMENTS**

Completion of two semesters of residence study computed on the basis of a minimum of twelve semester hours of credit as the equivalent of one semester of residence.

#### **CREDIT FOR WORK COMPLETED ELSEWHERE AND BY EXTENSION**

There is no automatic transfer of credit toward a graduate degree, but, in general, residence work completed at another accredited graduate school may be accepted for not more than six semester hours of course credit toward a Master's degree. However, such work will not reduce the minimum residence requirement for the Master's degree.

Six semester hours of course work completed through the Memphis State University Extension Division may be applied toward degree requirements; however, not more than three semester hours may be applied toward major requirements or more than three semester hours toward minor requirements.

Extension work taken with another institution is not transferrable.

Six semester hours of transfer work may be applied toward degree requirements; however, not more than four semester hours may be applied toward major requirements or more than four semester hours toward minor requirements.

Not more than nine semester hours of any combination of extension work and work completed elsewhere may be credited toward the course requirements for the Master's degree.

**GRADUATE CREDIT IS NEVER GRANTED FOR COURSES TAKEN BY CORRESPONDENCE.**

#### **GRADES**

The grading system in the Graduate School is as follows:

Grade of A—Exceptionally high scholarship—four points for each semester hour.

Grade of B—Superior scholarship—three points each semester hour.

Grade of C—Average scholarship—two points each semester hour.

Grade of D—Poor but passing—one point each semester hour.

Grade of F—No point value.

Grade of I—Incomplete.

Grade of IP—In progress.

An average grade of "B" must be maintained in ALL graduate work, and credit earned with a "D" grade may not be counted toward meeting the major or minor requirements for the Master of Arts Degree.

Work with a grade of "F" will be included in the grade average computation.

Not more than 7 semester hours of credit with a grade of "C" may be applied toward meeting the degree requirements, and not more than 4 semester hours of "C" may be accepted in the major, and not more than 4 semester hours of "C" in the minor area.

A grade of "I" will become an "F" unless removed within the first four weeks of the next semester that the student is in residence. The deficiency, however, must be corrected within one calendar year from the date the "I" was recorded.

A grade of "IP" on problems courses will become an "F" unless removed within the first four weeks of the semester following the date of recording.

An "IP" grade on a *thesis* may be extended for a period of one year from the recorded date without special permission or penalty. Requests for more than one year extension of time must be made in writing.

#### COMPREHENSIVE EXAMINATION FOR THE MASTER OF ARTS DEGREE

Before being recommended for graduation, every candidate for the Master of Arts degree is required to pass a final comprehensive examination in his major subject and in his minor subject; it may be oral or written or both, at the discretion of the departments concerned.

It is the student's responsibility to confer with his major and minor departments regarding the time and place of the examination. No reminders will be sent him by the departments or by the Graduate Office.

#### STATEMENT OF INTENTION TO GRADUATE

Candidates for the Master of Arts degree must file a statement of intention to graduate with the Director of the Graduate School at the beginning of the semester, or session, in which the academic requirements for the degree are to be completed.

## Programs of Study

A variety of programs of study leading to the Master of Arts degree are offered in the Graduate School of Memphis State University. Candidates for the degree must design a degree plan which has the approval of their major adviser. This plan will include both a major and minor area of study. The major and minor may not be completed in the same area; however, general electives may be completed in any area.

### MAJOR AREAS:

- 1.—In the department of BIOLOGY, graduate students who select Biology as a major area will consult their major adviser as to the program of study; however, Biology 593 (3 or 6), is required of all those who major in Biology.
- 2.—In the department of CHEMISTRY, graduate students who select Chemistry as a major area of study will consult their departmental graduate committee as to the program of study. The program shall be consistent with the policies of the department of Chemistry. Chemistry 596 is required of all those who major in Chemistry.
- 3.—In the department of CURRICULUM AND INSTRUCTION:
  - A. Preparation as a Master Teacher:
    - Elementary School
    - Secondary School
  - B. Preparation as a Guidance Counselor.
  - C. Preparation in the Area of Special Education:
    - Teaching the Educable Mentally Retarded
    - Teaching the Hospitalized, Homebound and Crippled Children
  - D. Preparation as a Curriculum Director or Supervisor of Instruction.

All students majoring in this department must complete one of the above programs of study, requirements for which will be outlined by the student's major adviser. In the chosen program each student will be required to complete one course in each of the following four fields: (1) Educational Foundations; (2) Curriculum Development; (3) Educational Psychology, Guidance, and Special Education; (4) Research and Methodology.

- 4.—In the department of EDUCATIONAL ADMINISTRATION AND SUPERVISION:
  - A. Preparation as a School Principal:
    - Elementary School
    - Secondary School
  - B. Preparation as a School Superintendent.
  - C. Preparation as a Supervisor of Attendance.
  - D. Preparation as a Supervisor of Instruction.

All students majoring in this department must complete one of the above programs. The following courses are required in each program:

Education 537—Techniques of Educational Research (3)  
 Education 581—Public School Organization and Administration (3)  
 Education 571—City and County School Supervision (3)

- 5.—In the department of ENGLISH, graduate students who select English as a major area will consult their major adviser as to the program of study.
- 6.—In the department of GEOGRAPHY, graduate students who select Geography as a major area will consult their major adviser as to the program of study.
- 7.—In the department of HISTORY, graduate students who select History as a major area will consult their major adviser as to the program of study; however, History 500—Historical Method (3), is a required course in the History major.

- 8.—In the department of **MANAGEMENT AND FINANCE** the student may choose to concentrate in one of the following fields:
- A. Management
  - B. Finance
  - C. Economics
- Students majoring in this department will consult with the Departmental Chairman or with the advisor assigned to him as to the program of study.
- 9.—In the department of **PSYCHOLOGY**, graduate students who select Psychology as a major area will consult their major advisor as to the program of study.

#### **MINOR AREAS:**

- 1.—In the department of **ACCOUNTANCY**, 9 semester hours as approved by the minor adviser.
- 2.—In the department of **BIOLOGY**, 8 semester hours as approved by the minor adviser.
- 3.—In the area of **BUSINESS EDUCATION AND OFFICE MANAGEMENT**, 9 to 12 semester hours as approved by the minor adviser.
- 4.—In the department of **CHEMISTRY**, 8 semester hours as approved by the minor adviser.
- 5.—In the department of **CURRICULUM AND INSTRUCTION**, 9 semester hours as approved by the minor adviser including Education 561.
- 6.—In the department of **EDUCATIONAL ADMINISTRATION AND SUPERVISION**, the following courses are required for a minor.
  - A. Education 581 Public School Organization and Administration (3).
  - B. Six semester hours selected courses.
- 7.—In the department of **ENGLISH**, 9 semester hours as approved by the minor adviser.
- 8.—In the department of **MANAGEMENT AND FINANCE**, 9 semester hours as approved by the minor adviser.
- 9.—In the department of **GEOGRAPHY**, 9 semester hours as approved by the minor adviser.
- 10.—In the department of **HEALTH AND PHYSICAL EDUCATION**, 9 semester hours as approved by the minor adviser, 3 semester hours of which must be selected from the following two courses:
  - P.E. 562—Curriculum Construction in Health Education and Physical Education (3)
  - P.E. 571—Development and Supervision of an Elementary School Health and Physical Education Program (3)
- 11.—In the Department of **HISTORY**, 9 semester hours from the field of American History and the field of European History, each approved by the minor adviser.
- 12.—In the broad area of the **HUMANITIES**, 12 semester hours, to be selected from History, English, Mathematics, and Philosophy or Psychology.
- 13.—In the area of **LIBRARY SERVICE**, 9 semester hours may be taken to satisfy the minor requirement.
- 14.—In the Department of **MARKETING**, 9 semester hours as approved by the minor adviser.
- 15.—In the Department of **MATHEMATICS**, 9 semester hours as approved by the minor adviser.
- 16.—In the department of **PHYSICAL SCIENCES**, 9 or 12 semester hours in courses approved by the chairman of the department and the student's major professor.
- 17.—In the Department of **PSYCHOLOGY**, 9 semester hours as approved by the minor adviser.
- 18.—In the broad area of **SCIENCE**, 12 semester hours to be selected from Biology, Chemistry, Mathematics, and certain designated courses in Geography.
- 19.—In the broad area of **SOCIAL SCIENCE**, 12 semester hours, to be selected from History, Geography, and Sociology.

## Summary of Procedures for Student Working Toward Masters Degree.

REQUIREMENTS	UNDER DIRECTION OF	DEADLINE DATES
Application for Admission and Two Undergraduate Transcripts	Registrar's Office	Usually one month before registration. (See Graduate Schedule for specific dates)
Conference with Director of Graduate School	Director of Graduate School	Following acceptance into Graduate School and prior to initial registration
Initial Registration	Major and Minor Advisers	On Entrance
Application for Admission to Degree Candidacy	Major and Minor Advisers	Following completion of first resident graduate study and before completion of 18 semester hours
Approval of Candidacy	Director of Graduate School	Immediately following application for degree candidacy
Thesis (if written)	Major Adviser (Wm. G. Campbell's <i>Form and Style in Thesis Writing</i> (available in College Bookstore) shall be used in all graduate theses except in special fields where supplementary material may be used)	Due in Graduate Office two weeks before comprehensive examination
Comprehensive Examination	Major and Minor Advisers	Before end of semester in which academic requirements for the degree are completed
Statement of Intention to Graduate	Director of Graduate School	During registration for final course work.
Convocation	University Administration	First convocation following completion of all requirements for the degree

## Course Offerings

### Accountancy

MR. THOMPSON, *Chairman*, MR. CRAWFORD, MR. CURBO, MR. SPICELAND, MR. WRAY

G421—Advanced Accounting I. (3).

Partnerships, consignments, installment sales, insurance, statement of affairs, receiver's accounts, statement of realization and liquidation, annuities, estates and trusts. Prerequisite: Acctg. 312. Fall semester.

G422—Advanced Accounting II. (3).

Agencies, home and branch offices, consolidations, mergers, foreign exchange. Prerequisite: Acctg. 312. Spring semester. (This course may be taken before Acctg. 421.)

G424—Auditing I. (3).

Ethics in accounting practices, auditing standards and procedures, programs of audit of various accounts, construction and indexing of various papers, reports to clients. Fall semester. Prerequisite: Acctg. 312 and 332.

G425—Auditing II. (3).

Application of auditing principles to verification of financial statements, preparation of reports, case studies applicable to specific industries, current trends. A practice audit is carried out. Prerequisite: Acctg. 424. Spring semester.

G445—Accounting Systems (3).

Problems involved in designing accounting installations for various types of businesses, including the designing of clerical departments and planning of required mechanical devices. Prerequisite: Acctg. 312. Spring semester.

G446—Controllership (3).

Training in the field of administrative accounting, duties and functions of the controller, organization of the controller's office. Prerequisite: Acctg. 332. Fall semester.

G451—Federal Income Tax I (3).

Regulations pertaining to income taxation of individuals and partnerships. Prerequisite: Acctg. 311 and 312, or permission of instructor. Fall semester.

G452—Federal Income Tax II (3).

Laws and regulations pertaining to taxation of corporations, estates and fiduciaries. Also considered: Federal Gift Taxes; Federal Death Taxes; F.I.C.A. Tax, Federal and State Unemployment Taxation. Prerequisite: Acctg. 451. Spring semester.

G454—Governmental Accounting (3).

Accounting theory and practice applicable to Federal, State, and Local Government; and to nonprofit institutions; budgetary control; classification, control, and use of funds; financial statements and reports. Prerequisite: Acctg. 312. Fall semester.

511—Accounting Theory I, (3).

A study of the broad aspects and objectives of accounting with emphasis on generally accepted accounting principles, modern accounting trends, and contemporary controversial topics, through a study of the current releases of the American Institute of Certified Public Accountants, the American Accounting Association, and other research related to changing accounting concepts.

## 512—Accounting Theory II, (3).

A further study of the development of accounting theory and the influence of professional accounting societies and regulatory agencies upon the accounting profession. Prerequisite: Accounting 511.

## 531—Standard Cost (3).

Budgets, determination of standards, variances and their functions, cost reports, profit projecting. Prerequisite: Acctg. 332.

## 581—Internship in Accounting (3).

Seniors majoring in public accounting, after receiving approval of the accounting faculty, are placed in offices of cooperating public accounting firms to receive on-the-job training under the direct supervision of a certified public accountant and the general supervision of the college accounting staff. Credit allowed upon acceptance of report of work done, verified by supervising accountant, and completion of a qualifying examination. Minimum time: 500 hours. Both semesters.

## 583—Current Accounting Problems (3).

A cross section of problems encountered in CPA examinations, including such items as receiverships, realization and liquidation statements, estates and trusts, cost problems, partnerships, and consolidations. Prerequisite: Permission of instructor.

## 591 (—) Problems in Accounting (1-6).

Directed independent research projects in an area selected by the student with the approval of the staff member supervising. Prerequisite: Accounting G421 or equivalent.

- A. Public Accounting
- B. Industrial Accounting
- C. Governmental Accounting

## Biology

MR. RUDOLPH, *Chairman*, MR. BROWN, MR. POWELL

## G401—Plant Morphology. (4).

Comparative studies of general structure of lower plants, exclusive of bacteria and related forms, through the Bryophytes. Two hours lecture; four hours laboratory. Prerequisite: Biology 141 or its equivalent.

## G402—Plant Morphology. (4).

A continuation of 401 in which the vascular plants are considered. Two hours lecture; four hours laboratory. Prerequisite: Biology 141 or its equivalent.

## G403—Vertebrate Histology (4).

Microscopic study of normal tissues and organs of the vertebrate body. Two hours lecture; four hours laboratory.

## G404—Histological Technique (3).

Method of preparing animal tissues for microscopic study, theories of staining, and preparation of permanent mounts of animal tissues. One hour lecture; four hours laboratory. Prerequisite: Five hours of zoology or consent of instructor.



**G405—Sanitary Bacteriology (4).**

A study of micro-organisms in relation to water and sewage; disinfection and disinfectants. Two hours lecture; four hours laboratory. Prerequisite: Biology 302 or its equivalent.

**G410—Organic Development (3).**

The consideration of the theoretical and scientific evidences concerning the origin, development, and establishment of the major groups of living and extinct animals and plants.

Prerequisite: one year of biology. Recommended for biology majors and general students as well.

**G415—Bacterial Physiology. (4).**

A survey of bacterial physiology including growth, nutrition, biosynthesis, and adaptation. Three hours lecture; two hours laboratory. Prerequisite: Bacteriology 302, or its equivalent, and at least one year of Chemistry.

**G420—Plant Taxonomy. (4).**

A study of the principles of plant taxonomy. Special attention will be given to the classification of selected vascular plant families. Lectures, laboratory and field trips. Prerequisite: Consent of the instructor.

**G430—Invertebrate Zoology. (4).**

An advanced course dealing with the invertebrate animals, exclusive of the insects. Special attention is given to phylogeny, organology, and taxonomy. Two hours lecture; four hours laboratory. Prerequisite: Biology 142 or its equivalent.

**G440—Field Zoology (4).**

Designed to acquaint the student with a field knowledge of the animals of this locality. Identification, life history, and habitat will be considered. Birds and insects to be omitted. Two lecture hours; four hours laboratory.

Prerequisite: eight hours of biology including five hours of zoology.

**G450—Cellular Physiology (4).**

A study of the fundamental unit of all living things. The basic activities of cells are investigated—nutrition, adaption, growth and reproduction. Two hours lecture; four hours laboratory. Prerequisite: Biology 341.

**G460—Comparative Neurology. (4).**

A detailed study of the nervous system of selected animals with emphasis on the vertebrates. Two hours lecture; four hours laboratory. Prerequisite: Consent of the instructor.

**510—Seminar in Biological Literature (2).**

Sources of literature in the field of biology and experience in the utilization of such sources in biological research. Class reports and term papers required. Required of all students as a prerequisite for writing a thesis.

**512—Systematic Entomology (3).**

An advanced course in insect taxonomy. The principles of insect nomenclature with specific emphasis given to procedures. Intensive study is made in particular groups. Prerequisite: Biology 312 or its equivalent.

**560—Protozoology (4).**

A survey of the free living and parasitic protozoa. Consideration is given to structure, taxonomy, habitat, and life history. Lecture two hours; laboratory four hours.

Prerequisite: five hours of zoology or its equivalent.

**590—Research (2-4)**

The student through consultation, reading, and laboratory work will investigate selected topics in some phase of biology. A formal paper giving a review of the literature and the results of the investigation will be required.

## 591—Special Problems (4).

Qualified students may be given special problems which they will investigate. The investigations will be pursued under the supervision of a member of the graduate staff and reported in the form of a written paper.

## 596—Thesis (6).

All students majoring in Biology must write a thesis based on research done under the supervision of his major professor.

## Business Education and Office Management

MR. JENNINGS, *Chairman*

## G442—Office Management (3).

Modern methods in office organization and management; office systems and routines; office planning and layouts; furniture and equipment; selection, training, and compensation of office personnel; problems in handling the office staff; preparation and use of office manuals.

## 581—Principles and Foundations of Business Education (3).

The history, philosophy, principles and objectives of business education; curriculum problems; contribution of business education to general education; research problems and current business education literature.

## 582—Improvement of Instruction in High School Business Subjects (3).

A critical evaluation of content, visual aids, and methods in high school business subjects.

## 591—Problems in Business Education (1-6).

Directed independent research projects in an area selected by the student with the approval of the staff member supervising. Prerequisite: Approval of supervising teacher and departmental chairman.

## 592—Seminar in Business Education (3).

The purpose in this course is twofold: (a) to learn the methods and techniques of evaluating significant research studies and other current business education and related literature, and (b) to evaluate the progress that has been achieved in the conclusions of such literature to guide practical school use.

## Chemistry

MR. FOX, *Chairman*, MR. CLAYPOOL, MR. HOLMES, MR. IJAMS,  
MR. RARIDON, MR. SCHIRMER

## G401, G402—Biochemistry (4 credits each semester).

This course covers the fundamental physical and chemical mechanisms involved in the vital processes of living organisms.

Prerequisites: Chemistry 321, 322. Two hours lecture and four hours laboratory per week.

## G411, G412—Physical Chemistry. (4-4).

This course deals with important theories, laws, and subject matter of physical chemistry.

Prerequisites: Chemistry 211, 212, 321, 322, Physics 211, 212, Mathematics 121 or 141, and a good knowledge of logarithms. Mathematics 311, 312 are desirable. Three hours lecture and two hours laboratory per week.

## G422—Instrumental Analysis. (4).

Applications of recent developments in the field of instrumental analysis. The theory and use of colorimetric, spectrophotometric and electrometric methods of

chemical analysis. Experience will be gained in the use of the Beckman DU spectrophotometer and other related colorimetric and spectrometric instruments.

Prerequisite: Chemistry 421. Two hours lecture and four hours laboratory per week.

G451, G452—Organic Preparations. (3-3).

The preparation and properties of organic compounds. Introduction to research methods.

Prerequisites: Chemistry 211, 212, 321, 322. One hour lecture and four hours laboratory per week.

501—Recent Advances in Inorganic Chemistry (3).

The course will consist of three one-hour lectures and one two-hour laboratory session per week. It is a review of the fundamentals of general chemistry with emphasis upon the newer aspects of basic chemical knowledge. Emphasis is placed upon the development of understanding in chemistry which will be helpful to the high school teacher in presenting mathematical and current concepts of chemistry to high school students. Laboratory experiments and demonstrations will be performed and developed which will meet the needs of high school courses. Prerequisite: One year of college mathematics is desirable.

502—Recent Advances in Organic Chemistry (3).

This course will consist of three one-hour lectures and one two-hour laboratory period per week. It is the systematic presentation of the fundamental principles of organic chemistry with interpretation of structure and properties in accord with modern atomic and molecular theory. Emphasis is placed upon the sources and uses of organic compounds in our daily lives. Special topics will be developed that will familiarize the high school teacher with the recent advances in the field and areas suitable for special projects for high school students. Laboratory experiments and demonstrations will be developed and performed which may be adapted for use in high school courses. Prerequisite: One year of college chemistry or a National Science Foundation Institute course in inorganic chemistry.

511-512—Advanced Courses in Inorganic Chemistry (3-3).

A further and more advanced study of inorganic chemistry. A systematic study of elements from the standpoint of the periodic law and attention will be given to present day interpretations of inorganic chemistry. Three hours lecture per week plus some additional laboratory work.

Chemistry 521—Principles of Analytical Chemistry. (3).

An advanced study of the theory and practice of quantitative analysis. Prerequisite: Chemistry 412.

Chemistry 531—Intermediate Organic Chemistry (3 crs. per semester)

Modern theories and applications of methods of synthesis as applied to practical problems of preparation of organic compounds. This course includes an extensive treatment of the structure and mechanism of reactions of aliphatic, carbocyclic, and heterocyclic materials. Three lectures per week. Prerequisites: Chemistry 321, 322.

Chemistry 532—Organic Qualitative Analysis (4 crs. per semester)

Characterization of known and identification of unknown, pure organic compounds by solubility tests, class reactions, specific test reagents, and the preparation of derivatives. One hour lecture and six hours laboratory per week. Prerequisites: Chemistry 221, 222 and Chemistry 321, 322.

Chemistry 541—Advanced Physical Chemistry. (3).

Thermodynamics in relation to chemical equilibria and reactivity, including such topics as isothermal and adiabatic expansions, cyclic processes, heat content,

specific heats, entropy, enthalpy, free energy, and vapor pressures. Prerequisites: Chemistry 412 and Mathematics 312.

Chemistry 551-52—Radiochemistry (3-3).

An introductory course designed to meet the expanding needs of the chemists in the area of nuclear and radiochemistry. The course will include a study of elementary nuclear properties and reactions with detailed treatment of the following: atomic and nuclear structure, radiations from nuclides, the radioactive decay law, interactions of radiations with matter, instruments, chemical separations, tracer radiochemical methods of analysis. Suggested prerequisites: Elementary Physical Chemistry and General Physics. Two hours lecture and three hours laboratory per week each semester.

Chemistry 561-562—The Chemistry of Colloids (3-3).

This course is designed to give fundamental concepts of colloidal chemistry to students who plan to enter the biological and/or chemical professions or related fields. Emphasis is placed upon particle size, liquid surfaces, adsorption, dispersion, emulsification, etc. The second semester will give attention to the special application of colloidal chemistry to macro molecules such as cellulose, cellulose derivatives and wood products. Prerequisites: Chem. 321-322 and 411-412. Two hrs. lecture, 3 hrs. lab per week.

Chemistry 593-596—Chemical Research and Thesis and Seminar (3 or 6).

The original investigation of an assigned problem in the area of graduate study to be carried out under the supervision of a qualified member of the staff. This investigation will furnish the material for a thesis. Scientific articles, progress reports, and special problems of interest to chemists are reviewed and discussed by the student in seminars each semester, participation in which is required of all graduate chemistry majors each semester. A maximum of six semester hours credit is allowed toward a master's degree, but a student must register for seminar each semester of residency.

## Curriculum and Instruction

MR. RUMBLE, *Chairman*, MR. BROWNLEE, MR. HAYNES, MR. KRAUSE,  
MISS LINSKIE, MISS MCFADDIN, MR. NOTHERN, MR. RICHARDSON,  
MR. SMITH, MR. UNDERWOOD

G415—Directed Student Teaching in High School Subjects (3).

Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

G416—Directed Student Teaching in High School Subjects (3).

For the student who has had Education 415 and desires student teaching in a second endorsement area.

G417—Directed Student Teaching in High School Subjects (3).

For the student who has had Education 415 and desires student teaching at a different level.

G423—Directed Student Teaching in the Kindergarten (3).

Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

G424—Directed Student Teaching in the Kindergarten (3).

For the student who is taking or has had Education 423 and desires additional experience.

G425—Directed Student Teaching in the Elementary School (6).

Observation of the growth and development of pupils and of methods of teaching; participation of school activities, culminating in assuming responsibility for teaching entire groups.

G426—Directed Student Teaching in the Elementary School (3).

For the student who is taking or has had Education 425 and desires additional experience.

G427—Student Teaching with the Educable Mentally Retarded (3).

Orientation, observation, teaching with mentally retarded pupils.

Prerequisite: Education 425 or 426.

G428—Student Teaching with Pupils who have Crippling and Special Health Conditions (3).

Orientation, observation, teaching with pupils who have crippling and special health conditions.

Prerequisite: Education 425 or 426.

G429—Workshop for Teachers in the Elementary School. (6).

A course designed to meet the needs of in-service teachers by offering an opportunity to work cooperatively on problems which are real to teaching situations and which meet the needs of the individual.

Prerequisite: teaching experience and consent of the director of the workshop.

G431—Workshop in the Improvement of Instruction (3).

This course is designed primarily to assist in-service and prospective teachers of grades one through twelve to improve the instruction-learning program. Attention is given to common elements of basic methodology such as purposes of education, classroom learning, motivation of learning, the utilization of appropriate materials and resources, evaluation of teaching and learning, etc. Attention is also given to ways and means of applying these elements of methodology in the several instructional areas of the elementary school and in the particular subject areas of the secondary school.

G432—Workshop in the Administration of Guidance Services (3).

This course is designed primarily to assist in-service and prospective teachers and administrators in providing more effective guidance services in grades one through twelve. Services to be considered may be grouped as follows: inventory, information, counseling, placement, and follow-up. Particular attention will be given to planning, organizing, and evaluating these services.

G442—The Teaching of Natural Science in the Elementary School (3).

This is an advanced course in the study of the natural environment as a child would view it. A survey of suitable equipment and materials for the elementary classroom and limited experience at carrying on experiments at the child's level.

G443—The Teaching of Mathematics in the Elementary School (3).

This is an advanced course acquainting prospective and experienced teachers with the mathematical process required of the elementary child and giving an insight into reasons why certain methods are used.

G444—The Teaching of the Social Studies in the Elementary School (3).

An analysis will be made of social problems, needs, and interests which are basic to the curriculum of the elementary school child. The role of the social studies and its relationship to the total school program will be emphasized.

G445—The Teaching of Children's Literature in the Elementary School (3).

This is a course designed to improve the methods of teaching children's literature in the elementary school. Units on story telling, dramatization, choral speech work, and the correlation of literature with the content subjects will be carried out.

G446—The Teaching of Reading in the Elementary School (3).

A study of reading methods designed for the development of efficient independent readers. Materials and activities appropriate for each developmental stage.

G448—Workshop in the Reading Program (3-6).

Through the media of group study, discussion, demonstrations, directed observation, and laboratory work, participants will have opportunity to formulate plans for their reading program as to content, methods and techniques, materials, and evaluative criteria.

G451—History of Education (3).

This course traces through European history some of the more important educational problems of modern times as they have been affected by the social and political facts of history, by the contributions of some of the leading educational theorists, and by institutional practices.

G452—History of Education in the United States (3).

This course aims to trace, describe, and evaluate, in the light of accepted facts, the development and growth of our educational practice, institutions, and theories from the beginning of colonial life to the present time.

G453—Philosophy of Education (3).

The purpose of this course is to furnish a guide to the philosophical treatment of, and to develop in the student some facility in critical and systematic thinking about, educational problems.

G461—Curriculum Problems and Trends in the Secondary School (3).

This course is designed to afford some help in the clarification of secondary school educational purposes and in determination of appropriate learning activities. It deals with the functional teaching objectives, ways of attaining these objectives, methods of establishing relationships among the school subjects, developing the core curriculum, and the organization and use of units of work.

G462—Curriculum Problems and Trends in the Elementary School (3).

This course deals with general educational objectives and means of achieving them; the role of the various school subjects and their relationships, and with the organization and use of units of work in the core curriculum.

G466—Audio-Visual Aids to Teaching (3).

Audio-visual materials will be examined from the point of view of their effectiveness and possible utilization in the school program. Opportunity will be provided to develop skills in the use of materials and equipment. The technical and administrative problems of integrating audio-visuals into the school curriculum will be studied.

G471—Principles and Procedures of Guidance (3).

An introduction to the principles of guidance with emphasis being placed upon the function of guidance in relation to child adolescent needs.

G472—The Psychology of Adolescence (3).

A study of the characteristics of the adolescent stage of development that should be taken into account in the planning and teaching of secondary school courses of study, in the supervision of extra-class activities in the secondary school, and in guiding and counseling with adolescents.

G476—Mental Hygiene and the School (3).

Guidance for the teacher in working on her own personality development and a study of the mental hygiene of the child as affected by his total environment, past and present.

G479—Supervised Practicum in School Guidance and Counseling (3).

Supervised application of the principles and methods of guidance derived from professional preparation: standardized tests, records and personal data,

educational and occupational information, personal and group counseling and interview techniques. Minimum: 135 clock hours. Prerequisite: Consent of instructor.

G480—Education of Exceptional Children (3).

A survey course which deals with the general problems involved in education of exceptional children.

G481—Education of the Mentally Retarded Child (3).

This course is designed to aid students in understanding the mentally retarded child. Includes basic educational techniques and methods applicable to mentally retarded children.

G482—Education of the Brain-Injured and Cerebral Palsied Child (3).

The content of this course consists of a study of (1) the neurological mechanisms, (2) the types of aphasia and their possible educational implications and adjustments, (3) the types of cerebral palsy and their educational implications and remedies by use of special methods and materials, and (4) the study of various other physiological impairments (such as encephalitis) frequently encountered by teachers of special education, with an investigation as to the most satisfactory educational approach to the rectification of these conditions.

G483—Education of Hospitalized and Homebound Children (3).

This is an orientation to the general and specific problems of the hospitalized and homebound child.

G484—Educational and Medical Aspects of Crippling and Special Health Conditions (3).

This course consists of a detailed study of the various types of physically disabling conditions (poliomyelitis, cleft palate, arthritis, measles, and other commonly injurious conditions) which cause either temporary or permanent decreases in educational proficiency. Special methods of instruction for these health conditions would be studied along with suitable adaptations of materials for such afflicted children within the framework of the public school organization.

G485—Introduction to Social Case Work (3).

This is an introductory course designed to acquaint the student with the concepts and principles underlying social case work.

501—Educational Thought (3).

This is a study of the evolution of educational theories and philosophies with particular reference to their impact upon educational developments in the United States.

504—Social Foundations of Education (3).

This course is designed to study education as a cultural universal. It emphasizes the mutual influence of social institutions and education as well as the factors involved in the socialization of the student personality. (Replaces G456).

506—Comparative Education (3).

This course is designed to offer a scientific study of education in various cultures by exploring the relationships that exist between a given educational system and the philosophy, history, geography, and technology of the people. This course is planned to give background and meaning to the content and method in the area of the social studies with special emphasis on international understanding.

521—Educational Psychology (3).

This is an advanced course in the psychology of teaching and learning designed especially for experienced teachers and administrators who desire to pursue graduate study in the field of education.

**526—Techniques of Counseling (3).**

This course includes a consideration of different schools of thought in counseling; how the school counselor works. Effective procedures for interviewing and counseling students including implications for school social work.

**527—Diagnostic Techniques in Guidance (3).**

Analysis and use of the diagnostic techniques basic to school guidance and counseling. How to select, use, and interpret devices for gathering data about students; how to assemble and interpret data from cumulative records and case histories.

**528—Educational and Occupational Information (3).**

This course is concerned with needs, trends, training facilities, and vocational opportunities. Emphasis will be placed on gathering, interpreting, and using all types of educational, social, occupational, and community information in the guidance program.

**529—The Group Process as Applied to Guidance (3).**

This course is a study of the group process as applied to the role of teachers and counselors in Guidance. It includes homeroom and group guidance procedures, and the counselor's function in working effectively with students, administrators, and teachers in the school.

**536—Educational Statistics and Research Methodology (3)**

This course is a study of the more important techniques used in educational research, of procedures in the analysis and interpretation of data, and develops ability in training elementary educational statistical calculations.

**541—Diagnostic and Remedial Reading in Elementary and Secondary Schools (3).**

An analysis of why certain children fail to read adequately. The development of a program in reading that will tend to correct reading deficiencies.

**553—Educational Tests and Measurements (3).**

A study of the principles underlying the construction of objective tests, and of the problems relating to the use and interpretation of school measurements by teachers and administrators. Practice is given in the construction of new type and essay tests, and in the elements of statistical procedure necessary for the interpretation of school measurements.

**557—Modern Methods in Education (3).**

A consideration of the overall task or function of education and what this means to teaching. How the school can perform its role most effectively.

**561—Fundamentals of Curriculum Development (3).**

A study of the fundamental aspects of curriculum development and the basic issues underlying curriculum planning. Four significant aspects are: educational directions; ordering potential experiences; patterns of curriculum organization; and the determination of principles and procedures by which changes in the curriculum can be made, evaluated, and sustained.

**562—Research in Curriculum and Instructional Problems (3).**

This course is designed to offer students an opportunity to gain experience in surveying and evaluating research findings in current curriculum issues, and planning for action research. Problem census and student needs will determine the specific areas approached.

**566—The Pupil Activity Program (3).**

A study of current philosophy and practice in regard to responsibilities of teachers, supervisors, and administrators for those phases of educational practice which are essential for the educational program, but are not considered as part of general classroom procedure.



591 (—) Special Problems.

Individual investigation and report under the guidance of a faculty member. Register for areas as follows:

(A) Curriculum (1 to 3).

(B) Instruction (1 to 3).

(C) Guidance (1 to 3).

593-6—Thesis (3 or 6).

Only students with superior scholarship are permitted to register in this course. The student must present in writing an outline describing the proposed thesis. This outline, when approved by the faculty members under whose direction the thesis is to be written, must be submitted to the Chairman of the Department of Curriculum and Instruction for his approval. This course will involve writing the thesis and will emphasize the adequate setup of the problem, the collection of the data, their use, and conclusions to be reached.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Director at the time of registration.

## Educational Administration and Supervision

MR. CRADER, *Chairman*, MR. ENGLAND

G411—School and Community Relationships (3).

The relationship of the school to the community movements and organizations concerned with health and safety, government and civic life, religion, occupations, extension services, children's organizations and clubs, adult education, cultural education, community cooperative movements, etc.; relationships of the community to such school activities as attendance, athletics, lunch, libraries, extracurricular program, home study, records and reports, guidance, etc.

G486—Elementary School Administration (3).

A study of the major aims of the elementary school; planning the daily program through the integration of related subjects; learning to keep and interpret various types of records and reports. Considering the importance of proper teacher-parent relationships. Special emphasis on the P. T. A. program in Tennessee.

537—Techniques of Educational Research (3).

A study of techniques used in the solution of educational problems with the objectives of (1) appreciation and critical evaluation of the work of others, and (2) the ability to use one or more techniques. Particular attention will be given to techniques of problem solving by group process.

571—City and County School Supervision (3).

A course designed to consider the general supervisory functions and techniques in school systems. The purpose of the course is to help the administrator and supervisor evaluate present programs and practices and from the evaluations plan in-service-training experiences which lead to improved instruction.

572—High School Supervision (3).

This course is designed to investigate some of the modern theories, principles and practices of school supervision as they apply to the practical problems of supervision at the secondary school level. Qualifications, selection and performance of supervisors are considered, along with the functional demands on modern secondary schools.

573—Elementary School Supervision (3).

This course deals with significant supervisory problems at the elementary school level. Recent research findings will be used to focus on the problems as they are dealt with through democratic elementary school supervision.

## 581—Public School Organization and Administration (3).

The following will be studied: the administrator and his leadership; his relation to all agents and agencies of the school; types of school organization, administrative and instructional supervision; classification and promotion of pupils; curriculum activities and materials; public relations; office administration, plant operation, assemblies, extra-instructional activities; special classes, library, and health program.

## 582—School Finance and Business Management (3).

The theory and practice of financing public education in the United States. Developing of guiding principles in educational finance, trends and needs in state and federal participation in school support, and local operational finance.

## 583—School Housing and Transportation (3).

A consideration of the school plant, grounds, and major equipment in relation to the educational needs of the community; utilization and accessibility of schools and transportation.

## 584—High School Administration (3).

This course is offered as a concise description of modern useful practices in organizing and administering secondary schools, types of high schools, selection and assignment of staff, program of studies, records, management of buildings and grounds, pupil personnel guidance, selection, retention and improvement of teachers, and interpreting the school to the public.

## 586—Internship in School Administration (3 or 6).

This course is designed to provide practical experience to students of school administration. The student will have opportunity to observe and participate as an administrative intern in selected school systems. The areas of observation and participation will include administration, supervision, school-community relationship, finance, and plant and transportation at secondary and/or elementary levels. Prospective enrollees should give thirty days notice of intention and secure approval of the chairman of the department.

## 587—Contemporary Issues in Educational Leadership (3).

Seminar on contemporary issues confronting leaders in American education currently before the profession and the public. The role of the administrator in resolving contemporary issues.

## 588—School Law (3).

This course is designed to consider the Federal and State statutes and local regulations which are applicable to the field of education. Emphasis is placed on legal requirements and their implications for public school operation. Court decisions relating to public schools are considered. The course is for administrators and students of administrative procedures.

## 589—Human Relations in School Administration (3).

The course will emphasize human relations in successful educational leadership positions. Human relations principles will be applied to the various responsibilities of school leaders, and research findings in this field will be interpreted for successful practices in school administration. Investigation of the practices and concepts of school leadership will be designed to help the student develop a personal philosophy which will be of practical benefit in his position.

## 591 (—) Special Problems.

Individual investigations and report of specific problems. Register for areas as follows:

- (D) School and Community Relationships (1 to 3).
- (E) School Supervision (1 to 3).
- (F) School Plant and Transportation (1 to 3).
- (G) School Finance and Business Management (1 to 3).
- (H) School Law (1 to 3).

## 593-6—Thesis (3-6).

Only students with superior scholarship are permitted to register in this course. The student must present in writing an outline describing the proposed thesis. This outline, when approved by the faculty members under whose direction the thesis is to be written, must be submitted to the Chairman of the Department of Educational Administration and Supervision for his approval. This course will involve writing the thesis and will emphasize the adequate setup of the problem, the collection of the data, their use, and conclusions to be reached.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Director at the time of registration.

## 599—Seminar in Educational Leadership (1-6 hrs.)

This course is designed primarily for persons in positions of educational leadership. It will deal with problems and issues deriving from movements and trends in our present day culture. Emphasis will be given to educational leadership arising therefrom.

## English

MR. EVANS, *Chairman*, MR. ARENDS, MR. BANNON, MR. CARSON, MR. FARRIOR, MR. HOWELL, MISS SEAY, MR. A. SMITH, MR. W. SMITH, MR. WALKER, MR. WOOLF, MR. WYNN

## G400—The Principles of Literary Criticism (3).

A study, including actual work with poetry and prose, of the principles underlying the analysis and evaluation of literature.

## G401—Old English Grammar and Readings (3).

Emphasis is chiefly upon Old English grammar, but time is devoted to selections from the literature of the period.

## G402—Beowulf (3).

A continuation of English G401, with both literary and linguistic emphasis.

## G411—Early English Drama (3).

British Drama is traced from its beginnings to the closing of the theaters in 1642, exclusive of Shakespeare.

## G412—English Drama Since 1642 (3).

The course of British Drama is further traced, beginning with the Restoration and continuing to the present era.

## G420—Spenser (3).

*The Faerie Queene* and other major poems are studied in the context of the historical, intellectual, and literary developments of the English Renaissance.

## G421—Chaucer (3).

As many of *The Canterbury Tales* as possible are read and discussed in class.

## G422—Milton (3).

The poetry of Milton is emphasized in this course, with some attention given to his essays. Papers and reports are assigned.

## G423—Tennyson and Browning (3).

An intensive study of selected poems of different types produced by each poet. Their philosophy and religion are considered, as well as their connection with fore-runners and successors.

## G424—Coleridge and Wordsworth.

The poetry and prose of Coleridge and Wordsworth with special attention to THE PRELUDE.

G432—Shakespeare's Tragedies (3).

All of Shakespeare's tragedies are read and critical examination is made of at least five of the author's greatest works. Attention is given to the principles governing tragedy.

G433—Shakespeare's Comedies and Histories (3).

The best known of Shakespeare's Comedies are included in this course. In addition several of his histories are studied.

G441—The English Language. (3).

This course involves a thorough investigation of the development of the English language from the standpoint of its phonology and etymology.

G442—English Grammar (3).

The historical development of English grammatical principles.

G443—Semantics (3).

Meaning and change of meaning in the use of English words.

G444—The Nature and Development of Language (3).

A survey of the general field of language and its relation to society and culture, as a background for the English language.

G451—The English Novel (3).

A critical appreciation of representative novels. Class discussion of their literary and historical merit and of the reflection of their authors' responses to the personal, social, and ethical problems of their time. From the Age of Elizabeth to mid-nineteenth century.

G452—The English Novel (3).

A continuation of G451. From mid-nineteenth century to the present.

G461—American Authors (3).

An analysis of the work of three nineteenth century writers of fiction with special attention to their themes and artistic forms.

G462—American Authors (3).

An appreciation of leading American poets and essayists, with emphasis upon their place in the development of ideas and art forms.

G470—The South in Literature (3).

A study of the culture and traditions of the South as reflected in its literature. Considerable independent reading will be required.

G490—British and Continental Backgrounds of English Literature (6).

This course is offered through European travel and Study only, and students are admitted by special permission of the Teacher and Conductor.

501—Studies in English Vocabulary (3).

Investigation of patterns of change in vocabulary and meaning.

531—Studies in Drama—Ancient (3).

A course in Greek and Roman Drama. It is expected to treat Aeschylus, Sophocles, and Euripides; Aristophanes; Plautus, Terence, and Seneca.

532—Studies in Drama—Medieval and Modern (3).

A course in certain great periods of drama. It is expected to treat Spanish Renaissance, French Classical, and German Romantic Drama; and Contemporary Drama in Europe and America.

533—Studies in Non-Dramatic Literature—Ancient (3).

A course in Greek and Roman prose and poetry, with especial regard to their influence on English and American literature. Included are the works of Homer, Plato, Aristotle, Theocritus, Virgil, Horace, Ovid, and Petronius.

534—Studies in Non-Dramatic Literature—Medieval and Renaissance (3).

A course in certain great writings on the period before 1600. The Song of Roland, the Niebelungenlied, and works of Dante, Petrarch, Boccaccio, Rabelais and Montaigne are included in the course.

542—Studies in the Eighteenth Century Novel (3).

Intensive analysis of the literary skill and significance of two major novelists, such as Fielding and Sterne, or Richardson and Smollett.

543—Restoration and Eighteenth Century Poetry (3).

551—Milton and His Age (3).

Course includes a survey of the historical background of Milton, including the political, social, and intellectual aspects of Seventeenth Century England. The major poems are studied intensively. Investigative problems are assigned, culminating in oral and written reports.

552—Milton and His Age (3).

A continuation of 551.

561—American Literature before 1860 (3).

A study of representative authors important to the development of literary culture in America before 1860.

562—American Literature Since 1860 (3).

A study of the major developments in American thought as revealed in selected authors since 1860.

571—Studies in the Literature of the Romantic Period (3).

An intensive study of major writers of the Romantic movement in England (1798-1832) and their relationship to the political, intellectual, and aesthetic currents of the era.

572—Studies in Victorian Literature (3).

An intensive study of major writers of the Victorian period, designed to examine closely the form and content of representative literary works and to relate them to the intellectual currents of their era.

593-6—Thesis (3 or 6).

This course is designed for students electing to write theses in the Department of English. All theses are to be written under the supervision of a committee consisting of the departmental chairman and the student's advisor. A written statement of the thesis subject, the proposed scope, and source of material must be submitted to and approved by this committee before the writing of the thesis is undertaken. The completed thesis must be approved by this committee before it is submitted to the dean of the Graduate School for final approval.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Director at the time of registration.

## Geography

MR. JOHNSON, *Chairman*, MR. MATTHEWS, MR. SISCO, MR. SOBOL.

\*G411—Earth Science I, The Earth (3).

An analytical study of land forms, their changes and their uses to man.

\*G412—Earth Science II, The Atmosphere (3).

An analytical study of climatic factors, climatic regions, and climatic effects on man.

\*G413—Earth Science III, The Soil. (3).

An analytical study of soils to include their physical, chemical, and biological qualities, and their classes, uses, and measures of conservation.

\*G414—Earth Science IV, The Oceans. (3).

An analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and their importance for transportation.

G425—Political Geography (3).

A course dealing with the major powers of the world and strategic areas and problems of international concern.

G431—Western Europe (3).

A geographic analysis of the major regions of Western Europe. Study is limited in the main to those countries inhabited by people speaking the Romance and Germanic languages.

G432—The Soviet Realm (3).

A regional analysis of the Soviet Union and the Slavic speaking countries of Eastern Europe.

G433—Asia South of the Soviet Realm (3).

A consideration of the significance of regional differences in Japan, China, and India, and a brief survey of the remaining areas.

G436—The South (3).

A specialized study of selected regions in the South with emphasis on changes and trends in the cultural-physical complex.

G437—Tennessee (3 or 4).

A comparison of the political, physical, economic, and human-use regions of the state. A survey of land utilization in the state is made by human-use regions. A minimum of six days of field work is required for 4 hours credit.

G441 (—) Field Courses in Geography.

(A) Local Field Study (3).

This course includes (1) a brief study of field planning and techniques, and (2) an application of these phenomena in reconnaissance field work and in the detailed mapping of physical and cultural features. Three half-day trips are required.

Prerequisite: consent of instructor.

(B) Regional Field Study (6).

A comparative study of at least four selected regions in the United States requiring the minimum of half a semester's work. The course is divided into three parts. The first is devoted to a library study of the regions to be traversed; the second requires a minimum of 16 days of study in the regions; and the third includes oral and written reports on parts one and two.

Prerequisite: consent of instructor.

G451—Urban Land Planning and Residential Housing (3).

A study in urban land planning and residential housing with emphasis on urban land values, subdivision development, and the various phases of home building.

G452—Geography and World Power (3).

An advanced course dealing with the potential strength of the U. S. as a world power based on its natural resources (spatial, agricultural, energy, and material), capital resources, and human resources.

G455—Workshop in Conservation (3 or 6).

A summer course for students interested in resource problems in Tennessee, in remedial measures applied to specific resource abuses in local communities, and in increasing inspiration and enthusiasm through association with trained resource workers.

\*Courses 411 to 414 inclusive are designed so as to be especially valuable to students interested in the physical sciences as well as in the social sciences. Assignments include field trips in addition to textbook and laboratory work.

511—Geography as an Earth Science (3).

A course dealing with the basic elements of the natural environment including climate, land forms, soils, minerals, native plant and animal life, and water bodies.

521—Economic Geography: Agricultural (3).

A survey of agricultural products and agricultural regions of the world, and the role of agriculture in world economy.

522—Economics Geography: Industrial and Commercial (3).

A global survey of the extractive industries, of the manufacturing regions, and of the major trade areas and trade routes.

524—Population Geography (3).

A survey of the density, distribution, migrations, trends, and settlement patterns of world population.

531—Seminar in Regional Geography (3).

541—Maps, Charts, Graphs (3).

A study of the ways by which data are presented and interpreted through maps, charts, graphs, and tables.

551—Conservation of Natural Resources (3).

A survey of the current problems and responsibilities relating to the conservation of our natural resources on the local, state, and national level.

553—Urban Geography (3).

A study of the allocation of land for urban uses, of the patterns, functions, and forms of urban centers, and of some of the major problems of urban development.

561—Geographic Tools and Techniques (3).

An analytical study of the tools and techniques for effective geographic instruction at different levels.

590—Development of Geographic Thought (3).

A course vital in acquainting the seriously minded geography student with the various types and sources of geographic literature, its nature and content, and the growth and development of geographic thought.

591 (—) Problems in Geography.

(A) Field of Regional Geography (3).

(B) Non-regional Fields of Geography (3).

These courses are designed primarily for students who are able to do independent work, and who are not enrolled in school on the campus.

Prerequisite: Approval of supervising teacher and departmental chairman.

593-6—Thesis (3 or 6).

A student registering for this course must have demonstrated, to two or more members of the geography staff, superior ability in the field of geographic content and in the organization and presentation of subject matter.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Director at the time of registration.

Prerequisite—Approval of supervising teacher and departmental chairman.

## Health and Physical Education

MR. HATLEY, *Chairman*, MR. LAMBERT, MR. SCOTT

G444—Clinical Practice (6).

Supervised clinical practice in the Department of Physical Medicine and Rehabilitation Service at the Kennedy V. A. Hospital. Instruction will be given in the conditioning, ambulation, and self care of patients with neurological, pulmonary, geriatric, neuropsychiatric, speech, blind, spinal cord injuries, cardiac, and other types of disabilities.

501—Foundations of Physical Education (3).

The interpretation of the objectives of physical education as related to scientific facts contained within the biological, psychological, and sociological fields of study.

526—Organization and Administration of Group Recreation (3).

A study of the development of the recreational movement. Principles and practices in the administration of a wholesome leisure time program and the place of the school and its personnel in community recreational life.

533—The Administration of Athletics (3).

For athletic directors, supervisors, athletic coaches and principals. A study of representative athletic administrative procedures for colleges, public school systems, and municipal athletic leagues. Fiscal procedures and business management are stressed.

562—Curriculum Construction in Health Education and Physical Education (3).

Consideration is given to the entire program of instruction in health education and physical education in the public schools; methods of instruction, standards of achievement, evaluation of results, and the preparation of courses of study.

571—Development and Supervision of an Elementary School Health and Physical Education Program (3).

Consideration is given to the entire program of instruction in health education and physical education in the elementary schools; methods of instruction, standards of achievement, organization and supervision of the program. (Intended for elementary school teachers as well as principals and supervisors).

591 (—) Special Problems

This course is designed to afford opportunity for prospective on in-service school and professional personnel to work individually or in groups in carrying out a research project. Register for areas as follows:

(A) Athletic Coaching (1-3)

(B) Health Education (1-3)

(C) Physical Education (1-3)

## History

MR. MITCHELL, *Chairman*, MR. BOOM, MR. BURROW, MR. LEROY, MR. ORR.

G402—Russian History (3).

This course offers a survey of Russian history from early times to the present.

G411—The French Revolution (3).

The Enlightenment, the French Revolution, and the Napoleonic era will be studied. Attention will be paid to the effects of those movements on Europe as a whole.

G412—Europe in the Nineteenth Century (3).

This course traces the history of Europe through the periods of reaction, revolution, unification and reform, 1815-1914.

G413—Europe in the Twentieth Century (3).

This course deals with the rapid developments leading through World War I, the peace conference, the uneasy inter-war years, World War II, and recent reconstruction and efforts to secure the peace.

G421—Foundations of Twentieth-Century America (3).

A comprehensive study of the United States from the end of the Civil War to the outbreak of World War I.

G422—Recent American History (3).



A comprehensive study of the United States from World War I to the present.

G431—Tennessee (3).

The political, economic, and social development of Tennessee from 1769 to 1861 is emphasized. A study is made of the land question, Indian affairs, internal improvements, early educational developments, the Constitutional Convention of 1834, the slavery controversy, and secession.

G432—The Old South (3).

This course begins with a study of the colonial South and traces its history to secession. It involves a study of the economic and social patterns of the South in their relation to southern ideology. Special attention is devoted to the Southern political leader and the relation of slavery to his thought and political ideas.

G433—Civil War (3).

A study of the causes of the Civil War, the campaigns of the war, and of the internal conditions in the Union and in the Confederacy.

G441—History of the Ancient Near East (3).

A study of the early civilization of Mesopotamia, Egypt, and Palestine. Especial attention will be paid to the interrelation of cultural influences between these areas and the contributions of each to western culture.

G442—History of Greece (3).

The growth and peak of ancient Greek civilization are presented in this course. Emphasis will be placed on the philosophy, literature, art and architecture of the Classic and Hellenistic periods.

G443—The History of Rome (3).

Roman expansion, organization and administration of the Republic and the Empire will be considered in this course. The permanent contributions of Rome to western culture in law, government, and literature will be especially considered.

G451—The Renaissance (3).

A study of the achievements and forces—political and economic, social and cultural, creative and intellectual—which made up this fascinating foundation of modern western and European culture.

G475—Mexico and the Caribbean (3).

A survey of Mexico, Central America and the West Indies from the Wars of Independence to the present day. Special attention is given to political, economic, social and foreign relations.

500—Historical Method (3).

A study of the mechanical techniques of historical composition, the nature and use of various kinds of historical source materials, bibliographical aids, and methods of historical synthesis.

511—The Age of Reformation (3).

A study of the period 1500-1648 emphasizing medieval and Renaissance background and economic and political effects of the great religious movements, both Protestant and Roman Catholic, during this epoch in the history of Europe.

512—The Age of Absolutism (3).

A study of European History from 1648-1789 stressing the great conflict of systems (feudalism, absolutism, and constitutionalism) and resultant generation of some principal forces in modern western civilization.

513—Tudor and Stuart England.

This study analyzes the waning of medieval culture and the processes eventuating in the emergence of modern England. These processes involve the intricately interconnected and casually related changes in State, Church, economic life, social structure, and intellectual developments.

516—European Diplomacy, 1870-1918 (3).

This course covers the era of Bismarckian diplomacy, the Triple Alliance and Triple Entente, the new imperialism, and World War I.

517—European Diplomacy since 1918 (3).

This course presents the history of the League of Nations, the United Nations, and the East-West conflict in addition to the purely European diplomatic history of the period.

521—The American Revolutionary Era, 1763-1789 (3).

A study of the period, placing special emphasis on social, economic, and political changes.

522—Jeffersonian and Jacksonian Democracy (3).

A course designed to give an understanding of American political and social idealism from 1800 to the Civil War.

527—The New South (3).

A study of the South from the Civil War to the present.

528—The Progressive Movement in American History (3).

A study of reform movements in the United States since the Civil War.

539—Seminar in History (3).

Intensive group study of a research problem under guidance of instructor.

593-596—Thesis Writing (3 or 6).

The student must write and defend satisfactorily a thesis on a subject approved by his major professor.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Director at the time of registration.

## Industrial Arts

MR. COLTHARP, *Chairman*

G441—Production Control (3). (Also offered as Management and Finance G447).

A study of the elements of production and their coordination. Prerequisite: Industrial Arts major or minor.

G443—Time and Motion Analysis (3). (Also offered as Management and Finance G449.)

A study of work simplification techniques, including analysis of jobs and trades. Prerequisite: Industrial Arts major or minor.

G451—Plant Layout (3). (Also offered as Management and Finance G448).

A study of industrial and educational plants, with emphasis on floor plans and placement of facilities. Prerequisite: Industrial Arts major or minor.

## Journalism

MR. WILLIAMS, *Chairman*

G421—Journalism in the Secondary Schools (3).

Intended primarily for those who expect to teach journalism in high school or to supervise high school publications. Financial problems, manner of directing high school courses and publications, and their relation to educational objectives will be discussed.

G440—Literature of Journalism. (3).

A bibliographical approach to the overall field of mass communication, consisting of critical reading of selective works. Admission to course by approval of department only.

G450—Public Relations (3).

A survey course presenting the field of public relations to the layman so he may best deal with newspapers, radio and television stations, and other media. A course designed to aid all individuals to better their contacts with these media so that all may gain through better handling of news.

## Library Service

MR. RUMBLE, *Chairman*, MRS. ALGEE

G411—Organization of Materials (3).

Includes instruction and practice in simplified procedures for acquisition, preparation, organization and circulation of books and related library materials, such as pamphlets, periodicals and audio-visual aids.

G412—Cataloging and Classification (3).

Introduction to principles underlying the classification of books and simplified techniques of cataloging books and other materials. The abridged Dewey Decimal Classification scheme is used and the use of printed cards is stressed.

G421—School Library Administration (3).

The library is treated as a service agency in this course. Emphasis is given to the place of the library in the instructional and guidance program of the school and to the philosophy and purposes of libraries and librarianship. Included are such problems as standards and evaluation, public relations and publicity, support, housing and equipment, training of assistants and library study hall relationships. Field trips are made to different types of libraries.

## Management and Finance

MR. MARKLE, *Chairman*, MR. CURBO, MR. JENNINGS, MR. MULLINS

G413—Economic Theory I, (3).

An introduction to the following concepts of price level, output, and employment: national income, neo-classical, quantity of money theory, and neo-Keynesian. Prerequisite: Basic Economics.

G414—Business Cycles and Forecasting (3).

Study of the factors involved in the movements of business activity, irregular, seasonal, regular, and trend; and the application of the same for forecasting purposes in business.

Prerequisite: Management 371, 341 and 361.

G421—Personnel Administration (3).

Employer-employee relationships; job analysis; recruitment, selection, training, transfer, promotion, and dismissal of employees; industrial unrest; wage plans and policies; employee health, interest, and morale; dealing with unions.

Prerequisite: Management 321 or permission of instructor.

G422—Collective Bargaining (3).

Labor-management relations from the standpoint of collective bargaining contracts. Emphasis is given to the process of negotiating agreements, including procedures, tactics and subject matter.

Prerequisite: Management 321.

**G431—Real Estate Law. (3).**

This course covers law and legal instruments as applied to real estate. It is designed to serve the needs of property owners and those engaged in the real estate business. Prerequisites: Mgmt. 302, 331.

**G432—Real Estate Finance. (3).**

Examination and analysis of the sources of funds for financing all kinds of real estate transactions made, including FHA and VA types. Prerequisites: Mgmt. 302, 361, and 331.

**G433—Property Management. (3).**

The fundamentals of management of real estate are developed. Examination and analysis of problems, duties, and responsibilities of the property manager are covered. Prerequisite: Mgmt. 431.

**G434—Real Estate Appraisal. (3).**

This course covers the fundamentals of appraising residential, commercial, and industrial real estate. Prerequisite: Mgmt. 432.

**G441—Corporation Finance (3).**

Advanced treatment of financial management with emphasis on small and medium-sized enterprise and the forces underlying determination of policy. Financial problems are considered in connection with refunding, reorganization, mergers, and consolidations.

Prerequisite: Management 341.

**G442—Management of Business Enterprise (3).**

Consideration is given to over-all policy formation and practice in the operation of new and going business concerns. Emphasis is placed on problems of nonfinancial management in the small firm.

Prerequisite: Management 341.

**G443—Human Relations in Business (3).**

A study of the contacts of business with its owners, creditors, employees, customers, community, and the various governments.

Prerequisite: Management 321 and 441 or 442.

**G445—Industrial Management II (3).**

A course devoted to solving typical problems that arise in the planning, layout, control, operation, and administration of a manufacturing enterprise. Prerequisite: At least three of the 300—courses in this major or permission of the instructor.

**G446—Systems Analysis (3).**

A course designed to give an introduction to the characteristics of electronic machines and their use in computation and data processing. The objective is to give students an understanding of the machines rather than to develop the advanced technical or mathematical aspects.

**G447—Production Control (3). (Also offered as I.A. G441).**

Organization and utilization of facilities, planning, scheduling, routing, dispatching, follow-up, quality control, inventory control, including scientific inspection and cost analysis and control. Prerequisite: Management 345.

**G448—Plant Layout (3). (Also offered as I.A. G451).**

A study of the management techniques for developing effective plant layout and material-handling methods; process analysis, operation sequence analysis, economic analysis; location and layout of production departments, maintenance facilities, employee service facilities, offices. Prerequisite: Management 345.

G449—Work Simplification and Standardization (3). (Also offered as I.A. G443).

Training in the techniques and practical applications of motion and time study in modern industry. Designed to develop simplified methods of doing work and to determine fair time allowances. Prerequisite: Management 345.

G451—Public Finance (3).

Theory and practice of government expenditure and revenue; theory, practice, shifting, and incidence of the various forms of taxation; elementary consideration of the integration of revenue and expenditure into fiscal policy.

Prerequisite: Basic Economics.

G452—State and Local Finance (3).

Specialized treatment of state and local financial administration of revenue and expenditure, with emphasis on Tennessee. Consideration is given to trends in policy formation and integration with Federal fiscal policy.

Prerequisite: Basic Economics.

G461—Money and Banking II (3).

A more detailed consideration of banking and its problems since 1930. Emphasis is given to monetary and banking policy and its relationship to business and fiscal policy.

Prerequisite: Management 361.

G462—Investments (3).

The principles of investment in stocks and bonds and their application to specific classes of investments.

Prerequisite: Management 341.

G471—Business Statistics II. (3).

Extension of the range of topics covered in Business Statistics I to include methods of correlation, analysis of variance, forecasting, and general business research.

Prerequisite: Management 371.

G491—Government Regulation and Business Policy (3).

A critical study of the impact of legislation and commission regulation on business policies. The effect of tax laws, Securities and Exchange Commission regulation and anti-monopoly legislation on organizational, financial, and operational aspects of non-utility business enterprises.

Prerequisite: Management 341.

G492—Government Fiscal Policy (3).

A critical examination of the most desirable goals for fiscal policy and the programs that may be followed to attain the various goals. Emphasis on tools available and techniques involved.

Prerequisite: Management 413 and 461.

G493—International Economics (3).

Historical approach to the theory of international trade. Consideration is given to the techniques of control over investment and trade, foreign exchange, balance of payments, and world interdependence.

Prerequisite: Management 361.

G494—Current Economic Problems (3).

A study of current domestic and international economic problems with special emphasis on international trade, foreign investments, economic reconstruction, and world economic organization and cooperation.

Prerequisite: Management 361.

## 503—Law of Taxation of Estates, Inheritances, and Gifts (3).

A survey course of the law of taxation as applied to the transmission of property by gift or death and its impact upon accumulations of wealth. The constitutional basis, statutory implementation, administrative regulation, and court interpretation of the laws of the United States and the various states. Prerequisite: Mgmt. 302.

## 505—Estate Planning (3).

Estate planning from an individual viewpoint designed to create, maintain, and distribute the maximum estate possible. Consideration is given to the aspects of law, insurance, real estate, investments, and taxes as they relate to the creation of estates by individuals and those who will be engaged in assisting others. Prerequisite: Mgmt. 503.

## 541—Analysis and Control of Business (3).

An overall study of management problems and the application of scientific management techniques to the control of various phases of business operation. Included are: general management controls, financial management controls, sales management control, production management controls, and personnel control and appraisal.

Prerequisite: Management 441 and/or 442.

## 542—Advanced Management of Business Enterprise (3).

The development of the Top Management viewpoint, the basic objective being to develop executive abilities and creative thinking. Selected problem areas of modern business will be explored, alternative courses of action appraised, and decision-making ability developed.

Prerequisite: Management 442 and/or 441.

## 561—Monetary and Fiscal Policy (3).

The planning and implementation of various monetary and fiscal measures. Emphasis is placed on the probable impact on important segments of the economy, the changes most likely to result, and the significance of those changes to business. Included is a survey of the tools, techniques, and changes in economic thinking as to their use. Prerequisites: Mgmt. 461 or 492.

## 562—Investment Portfolio Planning (3).

A study of the objectives of investment management with the emphasis on investments by individuals rather than by institutions. A study of risks as the principal elements involved in making investment decisions; the analysis of particular industries, companies and securities involved in the selection of portfolio securities. The emphasis is on long term investment decisions; however, considerable attention is given to the timing of purchases and sales.

Prerequisite: Management 462.

## 591—Problems in Management, Finance and Economics.

Directed independent research projects in an area selected by the student with the approval of the staff member supervising. Prerequisite: 6 hrs. of Upper Division (undergraduate) course work in the area selected.

A. Management (1-6)

B. Finance (1-6)

C. Economics (1-6)

## 593-6—Thesis (3-6).

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Director.

## Marketing

MR. SPINDLER, *Chairman*, MR. TONNING

### G401—Marketing Administration (3).

A case study of actual business marketing problems and the techniques used to solve them.

Prerequisite: Marketing 301.

### G421—Industrial Marketing (3).

A study of problems and policies of industrial purchasing, programs and policies in marketing with emphasis on channels of distribution.

Prerequisite: Marketing 401.

### G425—Product Planning (3).

Study of a product from the idea stage to placement of the product satisfactorily in the market place.

Prerequisite: Marketing 401.

### G461—Sales Management (3).

Organization and operation of the sales department from the administrative standpoint, including procedures in training salesmen.

Prerequisite: Marketing 361.

### G462—Sales Controls, Training, and Supervision (3).

A balanced study of two sales management problem areas—sales training techniques and field sales supervision. Textbooks and trade literature are surveyed and compared with practices in current usage.

Prerequisite: Marketing 461.

### G481—Retail Policies and Problems (3).

A study of the problems which retailers are currently facing and an analysis of the policy decisions they must make to effectively meet these problems.

Prerequisites: Marketing 381 and Marketing 382.

### G485—Credit and Collections (3).

System of credit and collections employed today, significance of credit information, charge account management, and collection correspondence.

### G491—Marketing Research (3).

Research methods and procedures used in the field of marketing to help solve marketing problems.

Prerequisites: Management 371 and Marketing 401.

### 502—Marketing Management (3).

A study of policy determination and functions of the senior marketing executive with reference to functions, delegation of authority, and responsibilities of line and staff personnel, planning for growth and interpreting marketing knowledge.

### 521—Pricing and Price Policies (3).

An examination of the role of price in our economy and the problem of price making under conditions of competition, monopoly, and monopolistic competition with emphasis on the problems of non-price competition.

### 591 (—) Problems in Marketing, Advertising, Retailing, and Sales.

Directed independent research projects in an area selected by the student with the approval of the staff member supervising.

Prerequisite: 6 hrs. of Upper Division (undergraduate) course work in the area selected.

A. Marketing (1-6).

B. Advertising (1-6).

C. Retailing (1-6).

D. Sales (1-6).

592—Applied Marketing Research (3).

Development and application of research procedures to actual business problems. Prerequisite: Marketing G491 or permission of instructor.

## Mathematics

MR. KALTENBORN, *Chairman*, MR. WALKER

G401—Foundations of Mathematics (3).

Symbolic logic; the postulational method; the real number system; set theory; inequalities; limits. Prerequisite: Math. 142.

G421—History of Mathematics (3).

The development of mathematics from the earliest times to the present; problem studies; parallel reading and class reports. Prerequisite: Math. 401.

G422—Theory of Numbers (3).

Number theoretic functions; congruences; quadratic residues; Diophantine equations; continued fractions. Prerequisite: Math. 401.

G441—Algebraic Theory (3).

Theory of groups, rings and fields, with applications. Prerequisite: Math 401.

G442—Matrix Theory (3).

Matrix operations; equivalence, congruence and similarity of matrices; linear algebras; vector spaces; Boolean algebra. Prerequisite: Math. 401.

G461—Geometric Theory (3).

Foundations of geometry; extensions of Euclidean geometry; non-Euclidean geometry; introduction to projective geometry. Prerequisite: Math. 401.

G471—Advanced Calculus (3).

Continuous functions; mean value theorems; partial differentiation with applications; multiple integrals with applications; infinite series; power series; improper integrals. Prerequisite: Math. 312, 401.

500—Recent Advances in General Mathematics for High School Science Teachers (3).

The course will consist of four one-hour lectures per week. It is designed to give a comprehensive review of the basic mathematics necessary for the teaching of science, particularly chemistry and physics. The fundamental principles of mathematics, with particular emphasis on the use of ratio, proportion, logarithms, square roots, etc. together with the basic concepts of algebra, simple trigonometry, and even elementary principles of the calculus and analytical geometry will be stressed.

501—Introduction to Modern Mathematics (3).

Basic theory in the logical foundations of arithmetic; the postulational development of the number system; symbolic logic.

511—Modern Algebra for High School Teachers (3).

A study of basic theory in the logical foundations of algebra, with an introduction to matrix algebra and Boolean algebra. This course is designed to enlarge the teacher's background and understanding of the nature of algebra.

512—Modern Geometry for High School Teachers (3).

A study of basic theory in the logical foundations of geometry and in the fields of Euclidean, projective and non-Euclidean geometry. This course is



designed to enlarge the teacher's background and understanding of the nature of geometry.

513—Probability and Statistical Applications (3).

The nature and elementary theory of probability, statistics and sampling.

521—Seminar in the Teaching of Algebra (1).

Discussion of teachers' problems in organizing and teaching courses in algebra to high school students; consideration of current proposals for revising the content of high school algebra.

522—Seminar in the Teaching of Geometry (1).

Discussion of teachers' problems in organizing and teaching courses in geometry to high school students; consideration of current proposals for revising the content of high school geometry.

523—Seminar in the Teaching of Advanced High School Mathematics (1).

Discussion of teachers' problems in organizing and teaching courses beyond plane geometry to high school students; consideration of current proposals for revising their content.

## Philosophy

MR. BARTON, *Chairman*

G411—Logic (3).

A study of the basic principles and modes of correct thinking. Prerequisite: One semester course in Philosophy or permission of the instructor. Offered alternate years.

G412—Theory of Knowledge (3).

A critical study of the basic problems of epistemology, with readings in the important philosophers. Prerequisite: One course in philosophy or permission of the instructor. Offered alternate years.

G413—Metaphysics (3).

An analysis of the basic metaphysical concepts and a critical study of old and new theories of the nature of being. Prerequisite: One semester course in Philosophy or the permission of the instructor. Offered alternate years.

G414—Contemporary Philosophy (3).

The major concepts and problems of modern philosophy including Existentialism and Logical Positivism. Prerequisite: One semester course in Philosophy or permission of the instructor. Offered alternate years.

511, 512—Seminar in the Problems of Current Philosophy (3-3).

Individual research will be encouraged on a topic chosen for discussion at the beginning of each semester. This course will be open only to students who have satisfactorily completed 2 semesters of undergraduate Philosophy. (One semester of undergraduate may be accepted by permission of advisor and instructor where student has shown unusual ability.)

## Physics

MR. FOX, *Chairman*, MR. IJAMS, MR. RARIDON

501—Recent Advances in General Physics (3).

The course will consist of three one-hour lectures and one two-hour laboratory per week. It is a course designed to cover the basic and fundamental concepts of mechanics, heat, sound, light, electricity and magnetism, atomic and nuclear physics. Approximately one week will be devoted to each of

these fields, with the most important topics covered by lecture, demonstrations, and actual laboratory experiments. Daily problem assignments, as well as weekly laboratory reports and outside readings, will be required for each participant. Selected topics will be adequately covered and emphasized.

#### 502—Fundamental Concepts of Contemporary Physics (3).

The course will consist of three one-hour lectures and one two-hour laboratory session per week. The course material will be based to a great extent upon the topics covered in the original Volume 4 of the Physical Science Study Committee and will include many of the newer topics emphasized in the modern high school texts actually in use today. Electronics, the newer phases and concepts of electricity and magnetism, x-rays, radioactivity, and the basic principles of atomic and nuclear physics will be covered. The principle objective of the course will be to strengthen the background of those teachers now in the field of physics and to serve as a basis for more detailed study in the fields of atomic and nuclear physics.

## Psychology

MR. McCANN, *Chairman*, MR. ANDERSEN, MR. BOONE, MR. MAY, MR. PORTER

#### G411—History of Psychology. (3).

A general orientation course covering the historical antecedents and systems of psychology. Prerequisite: 12 semester hours in psychology.

#### G412—Physiological Psychology. (3).

A study of the physiological functions involved in behavior and experience. Surveys the physiology of the sense organs, nervous system and response mechanisms. Prerequisite: 12 semester hours in psychology.

#### G413—Advanced Quantitative Methods (3).

Follow-up to Psychology 215, Quantitative Methods, with emphasis on standard errors of all commonly used statistics as well as the analysis of variance, Chi Square, and non-parametric tests. Prerequisite: Psychology 215.

#### G414—Psychology of Exceptional Children. (3).

Home and school problems of handicapped, retarded, emotionally unstable, precocious, or gifted children. Prerequisite: 12 semester hours in psychology.

#### G416—Introduction to Clinical Psychology. (3).

Survey of the field of clinical psychology and its relationship to other disciplines. Prerequisite: 12 semester hours in psychology including Psychology 311 or 312.

#### G417—Psychological Appraisal (3).

Introduction to the development and application of psychological tests. Survey of instruments and techniques currently used in the psychological appraisal of the individual. Prerequisite: 12 semester hours in psychology.

#### 501—Theories of Learning (3).

Examination and discussion of the major contemporary learning theories. Attention is given to the basic assumptions, logical structure, and experimental support for the theories of Hull, Skinner, Tolman, Guthrie and of the Gestalt and Probability theorists.

#### 502—Theories of Personality (3).

A survey of the major contemporary theories of personality; consideration of the development and general nature of personality theory.

## 503—Psychometrics (3).

Statistical procedures in the construction and evaluation of psychological tests and other measuring instruments. Advanced correlational techniques, including multiple correlation, will be stressed. The test as a research device and the quantitative analysis of research results are considered. Prerequisite: Psychology 417.

## 511—Contemporary Approaches to Psychotherapy (3).

A survey of psychotherapeutic methods and concepts utilized in the counseling of the emotionally disturbed individual. The client-centered method is emphasized. Prerequisite: Psychology 416.

## 521—Measurements of Intelligence (3).

Consideration of group and individual tests of intelligence with major emphasis on the student's acquiring proficiency in the administration, scoring, and interpretation of the Stanford-Binet, Wechsler Adult Intelligence Scale, and the Wechsler Intelligence Scale for Children.

## 522—Projective Techniques (3).

Consideration of the projective methods of personality assessment currently employed in clinical practice with emphasis on the development and application of the Rorschach technique. Prerequisite: Psychology 416.

## 531, 532, 533—Directed Practicum (1 to 3 hours credit each semester)

Seminar discussion and supervised experience in the application of basic psychological procedures and principles to clinical cases in various institutional settings. Prerequisite: Consent of instructor.

## 591 (—) Special Problems.

Individual investigation in the following areas to be arranged with a member of the graduate faculty.

- A. Psychodiagnosis (1 to 3).
- B. Counseling and Psychotherapy (1 to 3).
- C. Theory and Research (1 to 3).

## 593—6—Thesis (3 or 6).

The major in Psychology is required to write a thesis based on research done under the supervision of his major professor.

## Sociology

MR. JOHNSON, *Chairman*, MR. GORDON, MR. HART

## G411—Criminology. (3).

Facts about ordinary crime, crime as a business, affiliated problems, trends in punishment, treatment of offenders, control and prevention.

## G412—Collective Behavior. (3).

The nature and emergence of collective behavior, the crowd, the diffuse collectivity, the social movement, social consequences of collective behavior.

## G421—Contemporary Social Problems. (3).

Meaning and scope of social disorganization, personal crises, family discord, group tensions, theories and practices in public policy.

## Speech

MR. WHITE, *Chairman.*

G431—History of British and American Oratory (3).

A history of the life, times, and speeches of outstanding orators of England and America.

G466—Speech and Hearing Disorders (3).

A general introduction to the causes, symptoms, and effects of speech and hearing disorders.

G492—Play Production for Secondary Schools (3).

Considers the problems of the play director in high schools.

G493—Forensics in the High School. (Offered in Summer Session only.) (3).

Considers the problems of the director of high school speech activities.

**DEGREE CANDIDATES—MAY 28, 1960****THE GRADUATE SCHOOL****MASTER OF ARTS**

Earlene Tucker Barker  
Barbara Sue Barnes  
Mary Elizabeth Barton  
Kitty Shadow Bland  
Betty Ray Blockman  
Thomas Wilmot Bond  
Wooten Sale Burton  
Lynette Ludlam Caldwell  
Elva Lawson Cantrell  
Virginia Ann Chess  
Mildred W. Clagett  
Jewel K. Copeland  
Harold Joe Davie  
Sara Gillespie Folis  
Jim C. Fortune  
William Thomas Grimes  
Lillian Mary Heffernan  
Celestine A. Jefferies

Katharine Vonnelle Lofton  
Martha W. Long  
Bill Baird McClain  
Pete M. Meadows  
Helen B. Moore  
Berl Olswanger  
Charles Pittman  
Ann Skerratt Richardson  
Lula Curtis Scott  
Mary Nelle Lewis Steed  
Lora Love Jones Strickland  
Bobby Gene Vaughn  
Dorothy B. Wagner  
John Richard Walker  
Austin Thomas Welsh  
Sara Joe Bass Wharey  
Wallace A. Wilson

**DEGREE CANDIDATES—AUGUST 17, 1960****THE GRADUATE SCHOOL****MASTER OF ARTS**

Raymond Glenn Abernathy  
Zed Aydelott  
Robert C. Baker  
John Gilbert Bannister  
Carl Gene Barker  
Eula Duncan Barker  
Jack Joseph Bell  
Rebecca Ileta Moore Bell  
Edward E. Bland  
James Robert Brooks  
Frances B. Burress  
William Leon Burns  
Travis F. Campbell  
Walter Spinks Carter, Jr.  
Dorris W. Dorris Dacus  
Janice Morton Dacus  
John H. DeBerry  
Vivian Cathey Dees  
Paul Joseph Drake  
Richard Clark Fontaine  
Rayford D. Ford  
John Conner Franklin  
Charles Glesol Graham  
Frances W. Guthrie  
Norman Hogan

Bennett Edward Hunter III  
Leila Almarita Johnson  
Wharton Stewart Jones  
Hugh Thomas Keenan  
Martha Ann Daigh Lansden  
Lewell Wilds Lee  
Frank Anthony Linxwiler  
Alda Somers McCoy  
Elizabeth Ann Maice  
Jeanne Carman Mallard  
Mary Mounce Mitchell  
Louise V. Moore  
Ann Murdaugh  
Ruby Martin Naef  
Billy Joe Naylor  
Rosa Cockcroft Nixon  
James Canon Parker  
Lillie Martin Parrish  
Walter A. Peterson  
Clay Jordon Phillips  
Rita Kay Pitts  
Louis Lafayette Porter  
Sarah Lindsay Riley  
Billy E. Rogers  
John E. Schwaiger

Isabel Brodie Sloan  
 Frances Gatlin Slover  
 Frank Lester Smith, Jr.  
 Lerline M. Smith  
 Paulyne Etta Stanfill  
 Erin Gary Stewart

Evelyn Humphreys Thomas  
 William Edward Todd  
 Terry L. Trice  
 Donald T. Tubbs  
 Bess Caraway Twaddle  
 George Todd Williams

## DEGREE CANDIDATES—FEBRUARY 3, 1961

### THE GRADUATE SCHOOL

#### MASTER OF ARTS

Robert Owen Armstrong  
 Willis Albert Barnes  
 Gloria Pitt Boyce  
 Henry Ward Byrd, Jr.  
 James Wallace Cantrell  
 April Hoh-Chan Chu  
 Charles B. Cureton  
 Adrienne Davis  
 Charles G. DePriest  
 James A. DeVazier  
 Lillian Lorene Eddins  
 Betty Eugenia Emerson  
 Maxwell Emerson  
 John Edward Free  
 William Jack Fuller, Jr.  
 Marvin Edgar Henderson, Jr.  
 Lee R. Hopkins  
 Charles Edmond Kendrick

Edwin Webster Lard  
 Dorothy Lee Lewis  
 Charles C. Linn  
 Robert J. McAdams  
 Dorothy Boggan McInnis  
 Marquis L. McInnis  
 Donald Royce Miller  
 Margaret Collier O'Connor  
 William Travis Pannell, Jr.  
 Norman W. Phebus  
 Helen Walker Raney  
 May Elizabeth Riddle  
 Paul R. Simonton  
 Robert Leland Trantham  
 Rebecca Buchanan Vaughan  
 James Michael Vincent  
 Woodrow W. Wagster  
 James David Williams



